

Time, Tense and Aspect in
Early Vedic Grammar

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Time, Tense and Aspect in Early Vedic Grammar

Exploring Inflectional Semantics in the *Rigveda*

By
Eystein Dahl



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*Alla cara memoria della mia nonna,
Maria Elena Cangini Kjellberg per
avermi dato l'ignavia malinconica e la
forza di volontà per superarla.*

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PREFACE AND ACKNOWLEDGEMENTS

This book represents a substantially revised version of my PhD thesis (Dahl 2008a) defended at the University of Oslo on September 5th 2008. They present some of the most important results of a three-year research project supported by the Faculty of Humanities, University of Oslo. The product of what turned out to be an overly ambitious aim—to arrive at a more precise understanding of the development of the Vedic past tense system through the methods of theoretical semantics and linguistic typology, the present book contains a reasonably detailed analysis of the tense/aspect/mood system in the oldest stage of Vedic but has an almost exclusively synchronic scope. Some preliminary diachronic results of the research project have been or are about to be published as Dahl (2009b, 2010a, 2010b) at the time of the completion of the manuscript.

The present work explores the interaction between tense, aspect and, to a somewhat less pervasive extent, modality in the language of the R̥gveda. At the same time it outlines a theoretical framework developed for the study of semantics in dead languages. For the almost five years I have been working on these and related topics and discussed my preliminary findings at workshops and conferences, I have almost exclusively received an overwhelmingly positive feedback from other scholars in the field and I have therefore come to believe that the results of my research are worthy of being made publicly accessible. What I present in this book is an outline of my current opinion about the semantics of tense, aspect and modality and an updated semantic analysis of some of the most central Early Vedic verbal categories. Due to the restrictions imposed by time pressure and the limitations of my intellectual capacity, the present work suffers from various shortcomings, philological as well as theoretical, and the critical reader will probably find a weak point on virtually every second page, if not more. Nevertheless, I think nobody would disagree that the method pursued here is basically sound and that the formally oriented approach to linguistic semantics outlined in this work has an advantage over other, competing frameworks in that it provides a set of relatively clear-cut criteria for testing hypotheses about the meaning associated with

grammatical categories in a language where no native speakers can be consulted.

The research reported on in this work has been conducted at the Department of Cultural Studies and Oriental Languages, University of Oslo, at the Sprachwissenschaftliches Seminar, Albert-Ludwigs-Universität, Freiburg i. Br., at the Department of Linguistics, Stanford University, at the Dipartimento di Glottologia 'T. Bolelli', Università di Pisa and at the Department of Linguistic, Literary and Aesthetic Studies, University of Bergen. It is my pleasant duty here to thank my supervisors Christoph Harbsmeier and Kjartan Ottosson, for their stern support and insightful critique, for their friendly and untiring effort to push me beyond my intellectual capacity and for constantly reminding me of the bedevilling nature of details. My first academic mentor, Fridrik Thordarson, also played an important role in an early stage of this project but his untimely death deprived me of his friendship, valuable advice and support.

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Paul Kiparsky's impact on my work can hardly be overestimated. At an early stage I read his seminal 1998 paper on aspect and event structure in Vedic, a work which inspired me to pursue a Reichenbachian approach to tense and aspect. Through our weekly discussions during my stay at Stanford he taught me how to pose the most intriguing questions and how to find the most convincing answers. My indebtedness to his theoretical influence and his invaluable guidance is reflected on virtually every page of this book.

During the process of revising the original thesis manuscript into a hopefully more readable and consistent monographic work I have profited enormously from the critical and constructive suggestions made by the opponents at my doctoral defence, Georges-Jean Pinault and Paul Kiparsky, by H. Craig Melchert and by two anonymous reviewers.

I am also immensely indebted to José-Luis García Ramón for having kindly read and commented on an earlier version of the manuscript and for having discussed various problems, theoretical as well as philological, in considerable detail with me during a hectic week we spent together in Köln during the summer of 2009. Furthermore, Jóhanna Barðdal has kindly granted me time and freedom to finish the manuscript while I have been employed as a post-doctoral research fellow in the research project *Indo-European Case and Argument Structure from a Typological Perspective* currently being conducted under her guidance at the University of Bergen. Helen Frances Leslie and Valerie Hannon Smitherman have kindly proofread my English, thereby eliminating at least some potential sources of confusion. I am also grateful to Sasha Lubotsky and Velizar Zadowski for having corrected the Russian and Bulgarian examples in Chapter One so that my competence in these languages appears to be less defective than it otherwise would have seemed.

Preliminary results of this project have been presented at workshops, conferences and guest lectures in Berkeley, Jena, Göteborg, Edinburgh, Oslo, Leiden, Stanford, Los Angeles, Austin, Yale, Marburg, Pisa, Napoli, Salzburg, Bergen, Freiburg, Köln and Kyoto. I have profited enormously from comments and critical remarks given by the audiences and from discussions with friends and colleagues who have generously shared their time and knowledge with me, above all Rosemarie Lühr, Carlotta Viti, Alexandra Daues, Dagmar Wodko, Sabine Ziegler, Antje Casaretto, Britta Irslinger, Stanley Insler, Heinrich Hettrich, Oswald Panagl, Alexander Lubotsky, Lenja Kulikov, Bela Brogyanyi, Reiner Lipp, Martin Kümmel, Dag Haug, Götz Keydana, Daniel Kölligan, Roland Pooth, Atle Grønn, Folke Josephson, Stephanie Jamison, Calvert Watkins, Vit Bubenik, Werner Knobl, Hans Hock, Frank Köhler, Julia M. Mendoza Tuñón, Georges-Jean Pinault, Caroline Kroon, Craig Melchert, Paul Kiparsky, Mark Hale, Michael Weiss, Andrew Garrett, Jay Jasanoff, Anneliese Pitz, Michiel de Vaan, Beth Levin, Elizabeth Traugott, Dmitry Levinson, Bruno Estigarribia, Scott Grimm, Corien Bary, Romano Lazzeroni, Maria Napoli, Domenica Romagno, Pier Marco Bertinetto, Michela Cenamo, Paolo Di Giovine, Elena Ossella, Livio Gaeta, José-Luis García-Ramón, Michael Witzel, Olav Hackstein, Peter Arnold Mumm, Silvia Luraghi, Marina Benedetti, Guro Nore Fløgstad, Jan Terje Faarlund, Kristin Føsker Hagemann, Kristine Eide, Lars Kirkhusmo Pharo, Boel Christensen-Scheel, Chiara Fedriani, Ilja Seržants, Thomas Smitherman,

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Finally, I am indebted to my parents, Ottar Dahl and Kristin Kjellberg, my brother, Erlend Dahl, and to my friends, above all Ruben Jan De Jong, Lise Ulvestrand, Nanna Baldersheim, Svein Egil Hatlevik, Aslak Tvedt, Kristine Blom, Chiara Fedriani, Erika Wolf, Sara Corsi, Trude Gran Peters, Vera Wilhelmsen and Helen Leslie for their moral and emotional support at some time or the other during the process of writing the book. Finally, I am immensely grateful to Cathinka Hambro for being who she is, for filling my days with happiness and for giving my life a deeper meaning. I have dedicated this book to the memory of my late grandmother Maria Elena Cangini Kjellberg who greatly appreciated my studies in Latin and Greek but was rather sceptical when I decided to pursue a Magister Artium degree in Sanskrit—or *il buddhismo*, as she condescendingly put it. She would indeed have been proud to see the hitherto final product of this dubious career choice.

Bergen, April 2010

E.D.

ABBREVIATIONS

ABS	Absolutive
ACC	Accusative
AOR	Aorist
AUX	Auxiliary
CMP	Compound, composto
DAT	Dative
DU	Dual
GEN	Genitive
HESPST	Hesternal Past
HODPST	Hodiernal Past
IMP	Imperative
INF	Infinitive
INJ	Injunctive
INS	Instrumental
IPF	Imperfect, imperfetto, imparfait
IPV	Imperfective
LOC	Locative
MID	Middle
NEUT	Neutral
NOM	Nominative
OPT	Optative
PASS	Passive
PFV	Perfective
PL	Plural
PPF	Pluskvamperfektum, Plusquamperfekt, Pluperfect, Piucheperfetto
PRÄT	Präteritum
PRET	Preteritum
PRF	Perfect, Perfektum
PRG	Progressive, progressivo
PRS	Present, presente
PRT	Participle
PST	Past, passato
PTC	Particle

RECPST	Recent past
SBJ	Subjunctive
SG	Singular
SPL	Simple, semplice
VOC	Vocative

A NOTE ON TRANSCRIPTION CONVENTIONS

Examples from Early Vedic are transcribed from Devanagari into Latin characters. Examples from Russian and Bulgarian are given in Cyrillic characters. Examples from Ancient Greek are given in Greek characters. Other languages are cited in Latin characters.

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INTRODUCTION

This book explores the interaction between aspect, tense and mood in the verbal system of Early Vedic, the language of the Rigveda. Although numerous previous studies have examined the functional range of individual verbal morphological categories in this language, few serious attempts have been made to account for the semantic motivation underlying their distribution patterns from an overall, systemic perspective. As a consequence, the exact semantic properties of the Early Vedic verbal categories are far from well understood and the typological status of the verbal system remains disputed.

The present study aims at gaining new insights into these issues by approaching the Early Vedic data from two hitherto unexplored perspectives, formally oriented theoretical semantics and linguistic typology. Its main goal is to arrive at a semantically coherent analysis of the Early Vedic inflectional categories and at a more precise understanding of how semantics interact with morphosyntax in this language. At first glance this enterprise may seem far-fetched, as anyone vaguely familiar with the Early Vedic sources will object that they present us with data which are far from ideal for a precise semantic analysis. Not only does the Rigveda constitute a limited corpus in a quantitative sense, but, as it exclusively consists of metrical hymns primarily composed for ritual purposes, it also only provides a very restricted set of primary linguistic data which are often without sufficient context for a reliable interpretation. On the face of it, then, there are good reasons for being sceptical as regards the fruitfulness of the present endeavour.

Although these initial remarks may seem rather discouraging, the fundamental question remains whether modern scientific theory can increase our understanding of these difficult data. The Rigvedic hymns pose a serious challenge to any analytical framework, but this does not necessarily mean that any attempt to arrive at a more precise understanding of the Early Vedic language is doomed to failure. This work attempts to show that formally oriented semantic theory provides a powerful set of tools for exploring inflectional semantics in dead languages and that this line of research represents a fruitful way of

approaching the problem of meaning in natural language even when we only have meagre and quirky textual evidence at our disposal.

Historical linguists constantly experience how our knowledge about dead languages is limited by the nature and amount of available sources. This problem can hardly be overstated, as the comprehensibility of an extinct language completely depends on these two factors. Our knowledge of Early Vedic is exclusively based on one collection of hymns known as the Rigveda. There is some evidence that the Rigveda consists of different chronological layers, the first and tenth books being generally taken to represent a later linguistic stage than the other books. On the other hand, it is generally acknowledged that all the books in the Rigveda and even individual hymns are composed of material from different chronological periods (cf. e.g. Witzel 1995b: 308–313). In other words, the fact that a given hymn or verse is found in a given book cannot in itself count as a reliable indication that it belongs to a particular chronological period. At the risk of a gross oversimplification of important philological facts, the language of the Rigveda shall, as a general methodological precept, be treated as one synchronic linguistic stage in this work. In order to not to draw any obviously incorrect conclusions, I have generally tried to avoid basing controversial claims exclusively on hymns and verses which have an evidently late character, except to make an occasional diachronic point.

In some respects, the Rigveda appears to be a very good source for the purposes of historical linguistics (cf. the discussion in Renou 1966). Standing at the beginning of the Indo-Aryan historical tradition, it represents, in Jamison's (2007: 18) words 'the final full-flowering, in India, of the Indo-European tradition of oral praise poetry (...) [b]ut it also starts the tradition of indigenous high-art poetry in the subcontinent.' One of the most important sacred texts of Hinduism, it has been faithfully preserved through an oral tradition which is still ongoing in present-day India. Elaborate transmission techniques were developed early on so that the text was orally transferred from one generation to the next with utmost precision, something which is reflected in the fact that the Rigveda has exactly or almost exactly the same form in different local oral traditions dispersed all over the South Asian subcontinent. In Witzel's words, one could consider 'present-day R̥gveda-reciting as a *tape recording* of what was first composed and recited some 3000 years ago' (Witzel 1995a: 91).

In other respects, however, the Rigveda represents a far less ideal source for historical linguistic aims. As briefly noted above, it consists exclusively of metrically composed hymns which are limited in theme since they have been composed primarily for ritual purposes. These hymns are typically devoted to one or more gods, praising their mythical deeds, inviting them to participate in the sacrificial ritual, requesting them to grant a wish of the speaker or an emphasis on the previous merits of the speaker with respect to the addressee and so on. Our knowledge of Early Vedic is thus strictly limited by the ritual purposes and textual conventions of the Rigvedic hymns.¹

The bias imposed by the Early Vedic literary tradition has many important consequences. For the overall purpose of the present work, it is significant that the discourse functions of tense, aspect and mood categories may vary considerably in different textual genres. This dimension of temporal and aspectual interpretation has been studied by the late Carlota Smith (e.g. Smith 2003, 2004), but apart from her pioneering work this field of research remains largely unexplored. As we are dealing with a dead language here, the fact that we only have access to a very specialized textual genre is difficult to overcome. However, the question remains whether it is impossible. Having acknowledged that the textual sources present us with a strictly limited set of primary linguistic data, it is reasonable to ask what the behavior of a given inflectional category in a text of the type we have access to can tell us about its semantic properties. Typological studies like Ö. Dahl (1985) and Smith (1997) have established that verbal categories with similar semantic properties show almost exactly the same cluster of lexically and contextually determined readings in genetically unrelated languages.² We may therefore entertain some fairly precise ideas about the semantic motivation behind a given set of discourse functions in the sense that the cluster of readings associated with a given morphological category provides important heuristic cues for determining its semantic properties. The following chapters elaborate on these general remarks.

The remainder of this chapter discusses the merits and shortcomings of some of the most important previous approaches to the Early

¹ Important recent studies on the language, style and poetics of the Rigveda include Elizarenkova 1993 and Jamison 2007.

² I refer to Napoli (2006a) for an excellent discussion of the aspect system in Homeric Greek and to Romagno 2006 for a discussion of the Homeric Perfect.

Vedic tense, aspect and mood categories, thereby isolating a few key issues which earlier scholarship has not addressed in sufficient detail or, indeed, at all. It is the aim of this book to remedy these shortcomings.

Previous approaches to the Early Vedic tense/aspect system

Early Vedic has a complex verbal system comprised of a large number of inflectional and derivational forms. This work is primarily concerned with the semantics of the morphological categories belonging to the Present, Aorist and Perfect paradigms including tense, mood and participle forms. Note that, in the present context, the notion of a paradigm is not limited to the forms associated with a given lexeme, but rather with the inventory of forms associated with an abstract inflectional or derivational stem, which itself can have a more or less unitary formal expression across lexemes. For example, there are about twelve different Present stem formations in Early Vedic, each of which is associated with a finite set of inflectional forms. The terms Present Paradigm or Present System will be used interchangeably to generalize over the formal inventory common to the various stem formations, which for our purposes may be regarded as lexically determined allomorphic variants of an abstract Present Stem. The main goal of this work thus is to establish whether there are any systematic semantic differences between the forms belonging to the Present, Aorist and Perfect Paradigms and, if so, whether these differences concern tense, aspect or both.

A particularly vexed question within this field concerns the semantic relationship between the two main past tenses, the Aorist Indicative and Imperfect, which belong to the Aorist and Present paradigm, respectively. There are at least four different hypotheses regarding their semantic properties available in the research literature. According to the common opinion, the Aorist Indicative has recent or immediate past time reference, whereas the Imperfect is primarily used in remote past contexts (cf. e.g. Delbrück 1876, Tichy 1997). Another slightly different hypothesis presupposes that the distribution of these categories is partly determined by this temporal remoteness distinction and partly by different discourse functions (cf. e.g. Delbrück 1897, Hoffmann 1967). A third hypothesis explicitly or implicitly claims that

the distribution of the past tense categories is determined by aspectual rather than temporal factors (cf. e.g. Gonda 1962, Kiparsky 1998 and Mumm 2002). Finally, a fourth view explicitly claims that there is no evidence that temporal remoteness or aspect plays any role in the Early Vedic past tense system (cf. Veckerdi 1955).

Another set of questions which has been less extensively discussed in the literature concerns the semantic properties of the mood and participle categories belonging to the Present, Aorist and Perfect paradigms. Broadly speaking, one may distinguish two sets of problems. One set of problems concerns what may be tentatively labeled *intra-paradigmatic coherence*, i.e. the extent to which the forms included in the Present, Aorist or Perfect paradigms have any semantic properties in common. Another set of problems concerns what may be called *inter-paradigmatic contrasts*, i.e. the extent to which there is any systematic semantic difference between the inventories of forms belonging to each of these paradigms. There have been few attempts to address these issues from a global perspective, but Hoffmann (1967) and Baum (2006) represent important preliminary steps towards clarifying certain aspects of this difficult area of Early Vedic grammar.

The remainder of this chapter critically examines the most important claims about the semantics of the Early Vedic verbal categories available in the scholarly tradition, without any attempt at being exhaustive.

Versions of the remoteness hypothesis have played an important role in Vedic scholarship at least since the second half of the 19th century. Berthold Delbrück, who in many respects represents the founder of the modern study of the Early Vedic tense and aspect system, gives the following definitions of the Early Vedic tense categories in his first work in this field:

Hinsichtlich des Präsens bemerke ich nur, dass es, wie in den übrigen indogermanischen Sprachen, gebraucht wird, um eine an keine Zeit gebundene oder eine in der Gegenwart vor sich gehende Handlung zu bezeichnen, und dass auch das praesens historicum im Veda vorkommt. (Delbrück 1876: 90)

Somit kann also als festgestellt angesehen werden, dass der Aorist in der überwiegenden Mehrzahl der Fälle das eben Geschehene bezeichnet. Es liegt zwischen der Gegenwart und der durch den Aorist bezeichneten Handlung nur ein kurzer Zwischenraum. (Delbrück 1876: 88)

Dass das Imperfectum einen von dem Aorist durchaus verschiedenen Sinn hat, ist schon aus den bisher behandelten Stellen zu ersehen (...) Aus diesem Material ergibt sich folgende Beobachtung: *Das Imperfectum erzählt etwas Vergangenes* (Delbrück 1876: 90)

Die Verwendung des Perfects ist sehr mannichfaltig. Man kann es an sehr vielen Stellen dem Präsens vergleichen (...) An andern zeigt es eine Aehnlichkeit mit dem Aorist (...) Und wiederum in einer grossen Anzahl von Fällen erscheint es ganz so gebraucht wie das Imperfectum (Delbrück 1876: 101)

Das Perfectum (in der Bedeutung 3[i.e. its non-immediate past reading]) constatiert etwas als vergangen, das Imperfectum erzählt. Bei Anwendung des Imperfectums stellt man also im Unterschied vom Perfectum an den Hörer die Anforderung, sich mit seiner Phantasie in den Verlauf der Erzählung zu versetzen (Delbrück 1876: 112)

These quotations indicate that Delbrück classified the Early Vedic tense categories according to three distinct dimensions, namely their temporal reference, i.e. whether they denote the present ('Gegenwart') or the past ('Vergangenes'), the relative temporal remoteness from the time of the utterance, i.e. whether they express that something has just happened ('das eben Geschehene') or simply has happened in the past ('etwas Vergangenes') and, finally, discourse function type, e.g. whether they are used to 'state a fact' ('constatiert') or simply to 'relate' something ('erzählt').

It is an uncontroversial defining feature of tense systems that different types of temporal reference play a major role in their organization. The second dimension, however, is slightly more controversial. Although Delbrück apparently regards the 'just happened' feature as semantically marked with respect to the 'happened in the past' feature, it is not entirely clear what he means by 'just happened'. This feature is defined in terms of the distance from the time of the utterance and we are simply told that this distance is short. In an immediately following passage, Delbrück makes the following claim:

Natürlich kann man nicht darauf ausgehen wollen für die Grösse dieses Zwischenraums einen objektiven Massstab (etwa einen Tag oder ähnl.) festzusetzen, vielmehr handelt es sich um das, was nach der subjectiven Meinung der Redenden als eben eingetreten anzusehen ist. (Delbrück 1876: 88)

This statement gives a partial answer to the question about the remoteness notions involved in the Early Vedic past tense system. Delbrück basically claims that the Early Vedic past tense system represents a

temporal remoteness system based on a subjective notion of proximity or recentness which he explicitly distinguishes from objective proximity or recentness. Note, however, that this hypothesis is explicitly based on an inductive generalization (cf. ‘in der überwiegenden Mehrzahl der Fälle’). It is therefore vulnerable to the general objection that it might be overly biased by the nature of the sources, as the Early Vedic hymns generally tend to be intimately associated with the here and now of the utterance situation. However, these general considerations do not necessarily imply that Delbrück’s claim is untenable, only that it is based on evidence which is not terribly strong.

Delbrück’s account of the Early Vedic past tenses appears to be influenced by the account given by the native Indian grammarian Pāṇini (ca. 500 BCE)³ who defines the past tenses along three independent dimensions, namely ‘in the past’ (*bhūte*), ‘with non-present day time reference’ (*anadyatane*) and ‘outside the view’ (*paro’kṣane*). In his system, the Imperfect is defined as ‘in the past’ (*bhūte*) and ‘with non-present day time reference’ (*anadyatane*), the Perfect is defined as ‘in the past’ (*bhūte*) and ‘outside the view’ (*paro’kṣane*), whereas the Aorist is simply defined as ‘in the past’ (*bhūte*).⁴ It is significant, however, that unlike Delbrück, Pāṇini explicitly refers to an objective time measure which incidentally represents the most common grammaticalized temporal remoteness distinction in natural language, namely the distinction between what has happened on the present day and what has happened prior to the present day, i.e. between *hodiernal* and *prehodiernal* past (cf. Ö. Dahl 1984, in particular 108–109, Comrie 1985: 83–101). The remoteness hypothesis would be considerably strengthened if it could be shown that the distribution of the Early Vedic Aorist Indicative and the Imperfect were determined by the distinction between hodiernal and prehodiernal past.

However, a brief look at the data shows that this prediction does not hold. Above all, the Early Vedic Imperfect proves to be compatible with the adverb *adyá* ‘today’ which has an unambiguously hodiernal (*adyatana*) past time reference.

³ Cf. e.g. Witzel (1995a: 98) and Cardona (1997: 1ff.) for a discussion of the date of Pāṇini.

⁴ Cf. von Boethlingk (1887: 102ff.).

- (1) a. yád *adyá* tvā prayatí yajñé
 As today you-ACC go.on-PRS.PRT.LOC sacrifice-LOC
 asmín
 this-LOC
 hótas cikítvó 'vr̥ṇīmahi ~ ihá /
 Hotar-VOC wise-VOC choose-1.PL.IPF here
 'As we chose you at this ongoing sacrifice here today, O wise
 Hotar (...)'⁵ (RV III 29.16ab)
- b. táva ~ ahám *adyá* maghavann úpastutau
 you-GEN I-NOM today great-VOC celebration-LOC
 dhátar vídhātāḥ kaláśāṃ
 creator-VOC distributor-VOC waterpots-ACC
abhakṣayam //
 drink-1.SG.IPF
 'In my celebration of you today, O great creator, O distributor
 I drank from the waterpots'⁶ (RV X 167.3cd)

These examples indicate that Pāṇini's remoteness distinction does not correctly describe the semantics of the Early Vedic Imperfect. In itself, this fact is not particularly surprising, as Pāṇini's intuitions about Vedic are several centuries younger than the Rigveda.⁷ Moreover, the language he describes differs from Early Vedic in various respects.⁸ Nevertheless, whatever semantic properties the Early Vedic Imperfect may have, it cannot be regarded as a prehodiernal past category. Consequently, the Early Vedic past tense system does not instantiate a remoteness system of the typologically most common kind.

As it stands, Delbrück's original hypothesis leaves several questions unaddressed. One set of issues concerns the status of the temporal

⁵ Cf. Geldner (1951a: 363): 'Da wir dich heute bei diesem beginnenden Opfer, du kundiger Hotṛ, erwählt haben' Cf. also Tichy's (1997: 597–598) translation: 'Weil wir heute, als dieses Opfer begann, kundiger Hotar, dich uns erwählt haben'.

⁶ Cf. Geldner (1951c: 393): 'Bei deinem Lobpreis, du Gabenreicher, du Schöpfer und Lenker, habe ich heute aus den Bechern getrunken.'

⁷ According to a widely accepted chronology, the collection of hymns we know as the Rigveda was established around 1200 BCE, whereas Pāṇini probably lived around 500 BCE (cf. Witzel 1989, 1995a, 1995b with references).

⁸ It is significant that Pāṇini himself uses the label *chandasi* 'in verse' to express that a given grammatical rule is valid in the Early and Middle Vedic hymns which he clearly perceives as different from his own language (cf. e.g. von Boethlingk 1887: xxv–xxvii, Kiparsky 1979: 56–75).

remoteness readings of the Aorist and Imperfect. Among other things, this hypothesis leaves open whether the Aorist obligatorily conveys a subjectively proximate past meaning and the Imperfect a non-proximate past meaning, or whether their remoteness readings can be defeated by contextual factors under given circumstances. Another related set of issues concerns the motivation for the distribution of the other tense forms. From the above quotations one learns that the Perfect is interchangeable with the Aorist as well as the Imperfect and Present, but is left wondering whether there are any principled constraints on this interchangeability or whether the Perfect simply represents a kind of default category which could be used whenever the speaker found it convenient.

As regards the status of the remoteness readings, we may note that Aorist Indicative forms are occasionally found in passages where a subjectively proximate past reading is unlikely. Consider for instance the following examples:

- (2) a. yéna ~ imá víśvā cyāvanā
 who-INS these-NOM all-NOM moving.beings-NOM
 kṛtāni
 made-NOM
 yó dāsaṃ vārṇam ādharaṃ
 who-NOM barbarian-ACC race-ACC vile-ACC
 gúhā~ākaḥ /
 secretly make-3.SG.AOR
 śvaghñī ~ iva yó jigīváṃ
 gambler-NOM like who-NOM win-PRF.PRT.NOM
 lakṣám ādad
 price-ACC take-3.SG.AOR
 aryāḥ puṣṭāni sá janāsa índraḥ //
 enemy-ABL riches-ACC he-NOM fellows-VOC Indra-VOC
 'He, by whom all these moving beings were made, who removed
 the vile barbarian race, who took away the riches from the
 enemy, like the lucky professional gambler takes away the pool,
 he, O fellows, is Indra'⁹ (RV II 12.4)

⁹ Cf. Geldner (1951c: 257): 'Durch den alle diese Umwälzungen geschehen sind, der die dasische Rasse unterworfen und verdunkelt hat, der die Reichtümer des großen Herrn wegnahm, wie ein siegreicher Glücksspieler den Einsatz, der, ihr Leute, ist Indra.'

- b. *sá pravolhñ parigátyā dabhīter*
 he-NOM abductors-ACC encircle-ABS Dabhīti-GEN
viśvam adhāg āyudham iddhé
 all-ACC burn-3SG.AOR weapon-ACC ignited-LOC
agnáu /
 fire-LOC
sām góbhir ásvair asṛjad ráthebhiḥ
 together cows-INS horses-INS emit-3SG.IPF wagons-INS
sómasya tá máda índraś
 soma-GEN these-ACC intoxication-LOC Indra-NOM
cakāra //
 make-3SG.PRF
 ‘Having encircled Dabhīti’s abductors, he burned every weapon
 in the ignited fire. He presented (him) with cows, horses and
 wagons. Indra has done these (things) under influence of soma’¹⁰
 (RV II 15.4)
- c. *yád īm índraṃ śámi řkvāṇa*
 when that-ACC Indra-ACC toil-INS bards-NOM
áśata ~
 reach-3.PL.AOR
ád ín námāni yajñíyāni
 and.right.then names-ACC praiseworthy-ACC
dadhire //
 place-3.PL.PRF
 ‘When they had reached Indra by toil as bards, then indeed they
 acquired praiseworthy names for themselves’¹¹ (RV I 87.5cd)

The first and second examples contain passages which refer to the mythical deeds of the god Indra which are set in the remote, mythical past. The Aorist Indicative forms *ákar* ‘made’, *ádad* ‘took’ and *adhāg* ‘burned’ can hardly be plausibly ascribed a subjectively proximate past reading here. In the third example, the Aorist Indicative form *áśata* ‘reached’ denotes a situation which is located prior to another situa-

¹⁰ Cf. Geldner (1951c: 257): Er holte die Entführer des Dabhīti ein, die ganzen Waffen verbrannte er im entzündeten Feuer. Er versah ihn mit Rindern, Rossen und Wagen.—Im Rausche des Soma hat das Indra getan.’

¹¹ Cf. Geldner (1951a: 112): ‘Da sie mit Dienst als Barden zu Indra gekommen sind, haben sie opferwürdige Namen erworben.’

tion located in the past. This temporal relation which is typically conveyed by the Past Perfect in English may be labeled ‘relative past’. Data like these indicate that the subjectively proximate past reading of the Early Vedic Aorist Indicative can be defeated by contextual factors, thus representing a pragmatic implicature rather than a strict semantic entailment.

Delbrück takes a prudently cautious stand on these exceptions, suggesting that these counterexamples perhaps can be accounted for by taking comparative data from other Indo-European languages into consideration:

Wie nun mit dieser Anwendung [the immediate past reading] des Aorists sich der seltenere historische Gebrauch (...) vermitteln l[ässt], darüber will ich mir an dieser Stelle noch kein Urtheil gestatten. Man hüte sich jedenfalls, den Gebrauch des iranischen und des griechischen Aorists bei der Feststellung der Grundbedeutung des Aorists ausser Augen zu lassen (Delbrück 1876: 88)

However, a methodological approach along these lines involves some rather obvious risks of fallacy. The fact that we find two etymologically related categories in two genetically related languages does not necessarily mean that these categories represent one and the same typological category. Nevertheless, the idea of determining the semantic properties of the Early Vedic Aorist by comparing its functional range with that of its semantically much less disputed Greek counterpart is intuitively appealing, as this would seem to provide a somewhat firmer basis for exploring its meaning as opposed to a purely inductively oriented approach.

It should be clear from the discussion so far that Delbrück’s initial investigations did not yield a particularly strong explanation of the semantics of the Early Vedic past tenses. In spite of this, his three-way classification of the Early Vedic past tense system in terms of temporal reference (present vs. past), temporal distance (subjectively proximal vs. not subjectively proximal) and discourse function (narrative vs. statement of fact) remains influential to the present day.

Delbrück’s later work on the Early Vedic past tenses is likewise primarily concerned with their temporal remoteness features and discourse functions, but introduces a new semantic dimension, namely aspect (Delbrück 1897: 260–305). Significantly, the discourse-functional dimension was ascribed a more important role in his later discussion of the Early Vedic past tenses, as indicated by the following quotation:

In *akrāmat* [Imperfect] wird die Handlung in ihrem Verlaufe vorgeführt, in *akramīt* [Aorist Indicative] ohne Rücksicht auf Anfang, Ende oder Dauer lediglich die Handlung an sich, d.h. die punktuelle Handlung. Somit weist auch der altindische Aorist auf punktuelle Aktion. (...) Das Imperfektum ist also recht eigentlich die Form für die Erzählung. (...) Es ist schwer, eine gute Bezeichnung für diese Anwendung des Perf. zu finden, man könnte sie konstatierend nennen. (...) In der Tat haben sie (sc. die Aoristindikative) eine andere Bedeutung als das Imperfekt, sie behaupten, das etwas sich in der Vergangenheit ereignet habe (Delbrück 1897: 240, 268, 274, 282).

Although two apparently different claims are made here, it is reasonable to suppose that they are somehow related or at least intended to be compatible. On the one hand, the Imperfect and Aorist are said to have different aspectual meanings. On the other hand, they are claimed to have different discourse functions, the Imperfect being used in ‘narration’ (‘Erzählung’) and the Aorist Indicative being used to ‘assert’ (‘behaupten’). Delbrück distinguishes the assertive function of the Aorist from the use of the Perfect to state a fact (‘konstatierend’), but leaves the exact difference between these two discourse functions undefined.

The main motivation for adding these new elements to the original theory seems to be that the newly emerging aspectual theory had proven to be a powerful tool for exploring the functional differences shown by the past perfective Aorist Indicative and the past imperfective Imperfect in Ancient Greek and similar categories in other Indo-European languages. It is commonly accepted that the main function of the perfective aspect consists in representing situations as completed, whereas the imperfective aspect typically represents situations as open or ‘in progress’. This functional difference is most transparent in narrative texts, where the perfective aspect typically has the effect of advancing the temporal progression of the text, whereas the imperfective aspect typically marks a break in the narrative time. As this textual genre is virtually non-existent in the R̥gveda one would hardly expect the Early Vedic Aorist and Imperfect to behave exactly in the same manner as the corresponding categories in Homeric Greek. This fact renders a direct comparison of the etymologically closely related past tense categories of Ancient Greek and Early Vedic difficult. However, the hypothesis that different grammatical categories encode different discourse functions provides an elegant solution to this problem, as it allows for mapping different sets of aspectual, temporal and discourse

functions to the Aorist and Imperfect at a prehistoric stage. It also provides a straightforward way of explaining the empirical observation that these categories behave differently in Homeric Greek and Early Vedic, namely that the Homeric Greek Aorist and Imperfect have each maintained one set of readings, whereas the corresponding categories in Early Vedic have maintained a slightly different set of readings. From a contemporary perspective, this hypothesis represented a demonstration of the explanatory power of the relatively recent discipline of comparative syntax. From the perspective of Vedic philology, this discourse-based theory is attractive because it provides two dimensions along which the use of the Early Vedic past tenses can be explored, namely temporal remoteness distinctions and discourse functions.

Hoffmann (1967) takes the discourse-based approach one step further. Drawing on Erwin Koschmieder's work (e.g. Koschmieder 1965: 9–89), he develops an elaborate theory concerning the relationship between morphosyntax and discourse in Early Vedic. As Hoffmann's theory not only accounts for the uses of the past tenses, but also provides a more general analysis of the Early Vedic tense/aspect/mood system, it has a considerable advantage over the less comprehensively formulated theories proposed by his predecessors in this field. The following discussion mainly concerns the elements of his theory which are relevant to the semantics of the tense categories and to some of the non-indicative modal categories. A full-scale evaluation of Hoffmann's theory is beyond the scope of the present work.

According to Hoffmann's approach, the discourse dimension and the temporal dimension represent two partly independent functional domains. His main claim is that the Early Vedic finite inflectional categories are mapped onto a set of discourse functions, for instance 'assertion' ('Bericht'), 'mentioning' ('Erwähnung'), 'statement of fact' ('Konstatierung') and 'narration' ('Erzählung'). Some discourse functions, e.g. assertion and mentioning, are conveyed by different modal categories (the Indicative and the Injunctive, respectively), whereas others, e.g. statement of fact and narration, are expressed by different categories within one and the same modal domain (the Aorist Indicative and the Imperfect, respectively). On the other hand, temporal reference is a central part of the meaning of the categories

belonging to the Indicative. For example, the Aorist Indicative and Imperfect are also used to convey a remoteness distinction between proximate and distant past.¹²

Die Funktion des Injunktivs (...) ist also die „Erwähnung“, der „Nicht-Bericht“. Er ist weder modal wie Konjunktiv, Optativ und Imperativ, noch „berichtend“ wie der Indikativ (Hoffmann 1967: 104)

Das Imperfekt ist das eigentliche Tempus der Erzählung, des historischen Berichts; es bezeichnet die fernere (nicht-aktuelle, historische) Vergangenheit. Es hat keine Beziehung zur Gegenwart des Sprechenden, sondern betont vielmehr den zeitlichen Abstand von der Gegenwart. (...) Im Zeitstufensystem steht bei unmittelbarer, aktueller Vergangenheit der Ind. Aor. (...) Der konstatierende Gebrauch des Indikativ Aorists ist mit Sicherheit nur dann fassbar, wenn der gemeinte Sachverhalt der *ferneren* Vergangenheit angehört. Bei aktuellen Sachverhalten ist es zumeist ins Belieben des Interpreten gestellt, ob er in dem Ind. Aor. eine Zeitstufenbestimmung oder eine Konstatierung sehen will (...) Der Ind. Perf. dient ebenfalls sehr häufig zur Konstatierung (Hoffmann 1967: 151, 153, 155)

These quotations indicate that Hoffmann's theory does not necessarily presuppose a one-to-one relationship between discourse functions and their morphosyntactic expression. He acknowledges that both the Aorist and Perfect can be used to state a fact, so that this discourse function appears to be mapped onto two morphological categories. This observation renders his account of the relationship between grammar and discourse plausible, as pragmatic functions may be analyzed in terms of implicatures or context-dependent readings arising from the basic semantic specification of a grammatical category and nothing prevents two notionally similar categories from having one or more readings in common. However, a potentially problematic aspect of Hoffmann's theory is that he apparently conceives of the various discourse functions as text type independent and, perhaps even universal, theoretical primitives. As some of the relevant discourse functions, e.g. statement of fact, are neither defined in intersubjectively accessible terms nor independently motivated, they ultimately render an evaluation of Hoffmann's hypothesis extremely difficult.

¹² Note, however, that Hoffmann's notion of immediate past apparently involves an objective-hodiernal dimension, as he explicitly defines the use of the Aorist Indicative forms *apīpema* 'we fattened' and *apīpyan* 'they fattened' with *hyās* 'yesterday' in RV VIII 66.7 and RV VIII 99.1 as 'stating a fact' ('konstatierend'; Hoffmann 1967: 156).

However, even if a correlation between particular discourse functions and particular morphosyntactic categories could be established, one would still have to account for the relationship between the discourse functions and the temporal readings associated with a given category, for instance between the statement of fact reading, the recent past reading and the relative past reading of the Aorist Indicative. It is remarkable that Hoffmann explicitly emphasizes that the Imperfect is aspectually neutral in the sense that it is compatible with perfective as well as imperfective readings and at the same time is inclined to explain the various readings associated with the Aorist in aspectual terms:

Es versteht sich nun, daß auch bei einer Definition des Imperfekts als Bezeichnung der fernerer Vergangenheit alle Verbalhandlungen, die irgend eine Art der Zeitdauer beanspruchen, mit eingeschlossen sind (vgl. etwa die Verwendung des deutschen Imperfekts). Im Vedischen (im R̥gveda sowie in der vedischen Prosa) steht aber das Imperfekt auch bei einmaligen Verbalhandlungen, bei denen eine zeitliche Ausdehnung keine Rolle spielt (...) Im Nebensatz dient der Ind. Aor. Zur Bezeichnung der Vorzeitigkeit. Dieser Gebrauch kann von den Fällen mit präsensischem Hauptsatzverbum ausgegangen sein, wobei der Ind. Aor. die unmittelbare Vergangenheit bezeichnete, ist aber wohl eher grundsprachliches Erbe, das aus dem perfektiven Aspekt des Aorists resultiert (...) In der „berichtenden Erzählung“ von Tatbeständen der fernerer Vergangenheit wird kein Aspektunterschied bezeichnet, es steht immer das Imperfekt. (...) Der Gebrauch beruht mit Wahrscheinlichkeit auf dem perfektiven Aspekt, wie dieser ja auch den (augmentierten) Aoristindikativ zum Ausdruck der aktuellen Vergangenheit und der (präteritalen) Konstatierung befähigt (Hoffmann 1967: 153, 270)

According to Hoffmann, then, the Early Vedic Aorist has three distinctive readings, a recent past reading, a relative past reading and a statement of fact reading, all of which can be traced back to a basic past perfective meaning. The Imperfect, on the other hand, represents an aspectually neutral past tense which is mainly used in remote past contexts. Note that this theory is perfectly compatible with Delbrück's original observation that the Aorist Indicative is mainly found in recent past contexts, but that it is occasionally used in remote past contexts as well.

At this point it is tempting to ask whether the 'narrative' use of the Imperfect could represent a discourse function which is ultimately motivated by its basic neutral aspectual character, just like the 'statement of fact' reading of the Aorist Indicative reflects that it denotes

the perfective aspect. Or could it be that aspect motivates the remote past reading of the Imperfect in the same way as aspect motivates the immediate past reading of the Aorist? In any case, Hoffmann's theory seemingly presupposes that the functional differences between the Early Vedic past tenses indicate that they have different aspectual properties.

Another, more radical view is formulated by Tichy (1997: 595–602), who explicitly claims that there is no aspectual difference between the Early Vedic Aorist Indicative and Imperfect, but that the distinction between immediate past ('aktuelle Vergangenheit') and remote past ('entfernten Vergangenheit') is the only semantic factor determining their distribution. Tichy's notion of temporal remoteness has the immediate advantage of being defined in unambiguous, extensional terms. The immediate past relation is understood as involving the absence of a relevant temporal interval between the time of the situation and the time of speech. The non-immediate or remote past relation is understood as involving the presence of a relevant temporal interval between these two times.

Während demnach im Vedischen die aktuelle und die entfernte (d.h. durch eine Zwischenphase von der Gegenwart abgesetzte) Vergangenheit jeweils durch zwei verschiedene Tempuskategorien bezeichnet werden—mit aller Konsequenz, wie eine paradigmatische Opposition es mit sich bringt—, wird in vedischen Texten keine präteritale Aspektopposition ausgedrückt. (Tichy 1997: 592–593)

However, we have already seen that there are a few apparent counterexamples to these general rules. To account for the odd cases, Tichy (1997: 599) claims that Aorist Indicative forms as a rule have a 'resultative' ('resultative') or 'relative past' ('vorzeitige') reading in non-immediate past contexts:

Wenn der Indikativ Aorist nicht in aktuellem, sondern in narrativem Kontext auftritt, hat er in der Regel resultative oder vorzeitige Funktion. Die Bezeichnung vorzeitiger Handlungen ist keineswegs auf Nebensätze beschränkt (Tichy 1997: 599)

Tichy's hypothesis has the great advantage of ascribing a minimal set of readings to the Early Vedic past tenses and, moreover, that these readings are intuitively quite clear. Thereby she eliminates the need to recur to more or less vaguely defined discourse functions to account for their various uses. However, this theory would have to account for

the fact that the Aorist Indicative and Imperfect are sometimes used in exactly the same environment without any discernable difference in meaning. Consider the following examples:

- (3) a. *ny āvidhyad ilibísasya dṛlḥá*
 within pierce-3.SG.IPF Ilibísa-GEN strongholds-ACC
ví śrngíṇam abhinac chúsṇam
 apart horned-ACC. cleave-3.SG.IPF Śuṣṇa-ACC
índraḥ /
 Indra-NOM
yávat táro maghavan
 so.great-NOM strength-NOM bountiful-VOC
yávad ójo
 so.great-NOM power-NOM
vájreṇa śátrum avadhīḥ pṛtanyúm //
 mace-INS enemy-ACC strike-2.SG.AOR hostile-ACC
 ‘He pierced Ilibísa’s strongholds, Indra split horned Śuṣṇa. As great as your strength, as great as your power was, O bountiful one, you struck the hostile enemy with the mace’¹³ (Rigveda I 33.12)
- b. *yadā te máрто ánu bhógam*
 when you-GEN mortal-NOM after delight-ACC
ānaḥ
 attain-3.SG.AOR
ād íd grásiṣṭha óṣadhīr
 and.right.then devouring.most-NOM medicinal.herbs-ACC
ajīgaḥ //
 awake-3.SG.AOR
 ‘When man (first) found pleasure in you, then indeed (Agni) who devours everything activated the medicinal herbs’¹⁴ (RV I 163.7cd)

¹³ Cf. Geldner (1951a: 40): ‘Indra warf die Festen des Ilibísa nieder, er zerhieb den gehörnten Śuṣṇa. Mit ganzer Wucht, mit ganzer Kraft hast du Gabenreicher mit der Keule den kampflustigen Feind geschlagen.’

¹⁴ Cf. Geldner’s translation: ‘Sobald der Sterbliche in deinen Genuß gelangt ist, hat der Verzehrer der Pflanzen ihn geweckt.’

- c. yadā~íd ántā ádadṛhanta
 when indeed borders-NOM become.firm-3.PL.PPF
 púrva
 eastern-NOM
 ád íd dyāvāprthivī aprathetām //
 and.right.then heaven.and.earth-NOM spread-3DU.IPF
 ‘When the eastern borders became firm, right then heaven and
 earth spread out’¹⁵ (RV X 82.1cd)

In these cases, the distinction between immediate and non-immediate past seems to be neutralized, something which again may be taken as an indication that these readings are defeasible and hence pragmatically, rather than semantically, motivated. Although it is not entirely clear how Tichy’s theory would account for cases like these, her hypothesis is still preferable to those proposed by her predecessors, because it is able to account for a broad range of data by means of a conceptually simpler theoretical apparatus.

The hypothesis that the distribution of the Early Vedic Aorist and Imperfect is primarily determined by remoteness distinctions thus provides a straightforward explanation of the distribution of these two categories. In many respects, it may be regarded as the standard analysis of the Early Vedic verbal system. However, various scholars implicitly or explicitly assume that aspectual distinctions play some role in the Early Vedic verbal system as well. For instance, Gonda (1962) argues that the distribution of past tenses at least to some extent reflects that the Aorist denotes the perfective aspect and the Imperfect denotes the imperfective aspect. Scholars like Kiparsky (1998) and Mumm (2002) suggest that the distribution of the Aorist Indicative and Perfect Indicative can be explained in terms of varieties of the perfective aspect. Finally, some scholars, like Hoffmann (1967), are of the opinion that the distinction between perfective and imperfective aspect is of subordinate relevance in the past tense system, but that it may be invoked to explain the distribution of some non-indicative modal forms, most notably the Aorist and Present Injunctive in prohibitive clauses. In the following, each of these hypotheses is discussed in turn.

¹⁵ Cf. Geldner’s translation: ‘Sobald die östlichen Grenzen gefestigt waren, breiteten sich Himmel und Erde aus.’

Gonda (1962) represents the first large-scale attempt to explore the synchronic aspectual properties of the inflectional categories belonging to the Early Vedic Present and Aorist. Drawing on the theoretical framework developed by Ruipérez (1954), he examines how lexically specified *Aktionsart* notions interact with aspect and tense in the Early Vedic verbal system, with particular emphasis on the aspectual readings of the Aorist Indicative and Imperfect, but also including the Present Indicative, the Aorist and Present Imperative and the aspectual functions of some preverbs. Regrettably, however, he does not systematically consider the aspectual readings of the Perfect Indicative, because, among other things, he claims that '[T]he formal opposition between this category and the other members of the verbal system is based on distinctive features different from those underlying the opposition between Aorist and Imperfect, and also because as far as regards its function the Perfect is sometimes opposed, together with the other 'past tenses' to the Present, and sometimes, together with the Present, to the 'past tenses' (Gonda 1962: 53). Moreover, his analysis is seriously flawed because he does not systematically distinguish Indicative forms from Injunctive forms, so that several potentially significant observations are supported by examples which are controversial at best. Nevertheless, his conclusion that there is 'an unmistakable tendency to distinguish between an 'aoristic' and an 'imperfectic' aspect' in Early Vedic seems well founded given the data he discusses.

However, an analysis of the Early Vedic past tenses along these lines must somehow accommodate the objection that the distribution of the Aorist Indicative and Imperfect does not show the expected pattern in contexts which are sensitive to aspectual distinctions (cf. e.g. Tichy 1997: 593, p.c.). Above all, one tends to find Imperfect forms in contexts where a perfective past form might be expected to occur. Consider the following examples:

- (4) a. sám átra gávo 'bhíto
 together at.that.time cows-NOM from.all.sides
 'navanta ~
 low-3.PL.IPF
 ihéha vatsáir víyutā yád
 here.and.there calves-INS separated-NOM as
 āsan /
 be-3.PL.IPF

sám tá índro *asrjad*
 together they-ACC Indra-NOM throw-3.SG.IPF
 asya śākaír
 he-GEN strong-INS
 yád īṃ sómāsaḥ súṣutā
 when he-ACC somas-NOM well.extracted-NOM
 ámandan //
 intoxicate-3.PL.IPF

‘At that time, the cows were lowing at all sides, as they were separated from the calves. Indra brought them together again attended by his strong ones, when the well-pressed soma-juices had intoxicated him’¹⁶ (RV V 30.10)

- b. ápāgūhann amṛtām mártiyebhyaḥ
 hide.away-3.PL.IPF immortals-ACC mortals-DAT
 kṛtvī sávarṇām *adadur*
 make-ABS similar-looking-ACC gave-3.PL.IPF
 vívasvate /
 Vivasvat-DAT
 utá~áśvínāv *abharad* yát tát
 and ásvins-ACC carry-3.SG.IPF when that-NOM
 áśīd
 be-3.SG.PRF
 ájahād u dvā mithuná saraṇyúḥ //
 leave-3.SG.IPF and two-ACC pair-ACC Saraṇyū-NOM
 ‘They hid away the immortals from the mortals. Having made her similar, they gave her to Vivasvat and she was pregnant with the Ásvins when that happened. And then Saraṇyū left the two who formed a pair’¹⁷ (RV X 17.2)

¹⁶ Cf. Geldner (1951b: 28): ‘Die Kühe brüllten da von allen Seiten zusammen, da sie hier und dort von ihren Kälbern getrennt waren. Indra mit seinen Hilfstruppen brachte sie wieder zusammen, als ihn die wohlgepreßten Somatränke berauscht hatten.’

¹⁷ Cf. Geldner’s translation: ‘Sie verbargen die Unsterblichen vor den Sterblichen, machten eine Gleichaussehende und gaben sie dem Vivasvat. Auch ging sie mit den beiden Asvin schwanger, als dies geschah, und sie ließ die Zwei, die ein Paar waren, im Stich, die Saraṇyū.’

Another example of this type is found in (RV X 98.5).¹⁸ Tichy (1997: 593–594; cf. also 1999: 133) rightly points out that passages of this type might be expected to be particularly sensitive to aspectual distinctions. More specifically, the Imperfect forms *asṛjad* ‘threw’, *āpāgūhann* ‘hid away’ and *adadur* ‘gave’ appear to be used with a perfective-like meaning here, denoting a situation which is represented as completed. If it is correct that the Imperfect denotes the imperfective aspect and the Aorist the perfective aspect, there is no good reason why the Imperfect should be preferred to the Aorist in these passages. It remains unclear how an analysis along the lines of Gonda would account for data like these.

Aspectual notions have also been invoked to account for the distribution of the Early Vedic Aorist Indicative and Perfect Indicative. These two inflectional categories appear to have several readings in common, although most scholars agree that they are not completely interchangeable. For instance, although both these categories are compatible with a recent past reading, the Perfect Indicative has an ‘extended now’ or ‘universal’ reading which does not seem to be available for the Aorist Indicative. Consider the following examples.

- (5) a. *amī* *yé* *pāñca* *ukṣāṇo*
 these-NOM which-NOM five-NOM bulls-NOM
mádhye *tasthúr* *mahó* *divāḥ* /
 middle-LOC stand-3PL.PRF great-GEN heaven-GEN
devatrā *nú* *pravāciyaṃ*
 among.the.gods now gloriously
sadhrīcinā *ní* *vāvṛtur*
 converging-NOM in turn-3PL.PRF
 ‘These five bulls who stood in the middle of the great heaven
 have now returned gloriously to the gods’¹⁹ (RV I 105.10a–d)

¹⁸ I am grateful to Eva Tichy for having provided me with the examples cited in (4).

¹⁹ Cf. Geldner’s translation: ‘Jene fünf Sterne, die in der Mitte des hohen Himmels standen als ein unter Göttern rühmliches Werk, sind miteinander verschwunden.’ Kümmel (2000: 463) translates the passage as follows: ‘Jene fünf Jungstiere, die in der Mitte stehen des großen Himmels, haben sich nun unter den Göttern zum Preisen vereint niedergedreht [d. h. sind verschwunden].’

- b. *īyúṣ* *ṭé* *yé* *pūrvatarām*
 go-3PL.PRF those-NOM who-NOM earlier-ACC
āpaśyan
 see-3PL.IPF
viuchántīm *uśásam* *mártiyāsaḥ* /
 shining.forth-ACC dawn-ACC mortals-NOM
asmābhir *ū* *nú* *praticākṣiyā* ~ *abhūd*
 we-INS just now visible-NOM become-3SG.AOR
ā *u* *té* *yanti* *yé*
 hither and those-NOM go-3.PL.PRS who-NOM
aparīṣu *pásyān* //
 future-LOC see-3PL.PRS.SBJ
 ‘The mortals who saw earlier dawns shine forth are gone. Now
 she has become visible to us. And others will come who shall
 see (her) in the future’²⁰ (RV I 113.11)
- c. *śásvad* *dhí* *vaḥ* *sudānava*
 continuously for you-GEN munificent-VOC
āḍityā *ūtíbhīr* *vayām* /
 Āḍityas-VOC refreshing.favours-INS we-NOM
purā *nūnām* *bubhujmāhe* //
 previously now enjoy-1PL.PRF
 ‘For we have continuously been enjoying ourselves with your
 refreshing favors, O bountiful Āḍityas, formerly (and) now’²¹
 (RV VIII 67.16)

The fact that the Aorist Indicative and Perfect Indicative have overlapping functional domains has led some scholars to assume that these two categories have similar or even identical semantic properties. Kiparsky (1998) and Mumm (2002) suggest that the Aorist Indicative and Perfect Indicative both denote the ‘perfect’ or ‘retrospective’ aspect, but note that the Aorist apparently has a narrower set of readings than the Perfect. Drawing on a two-dimensional framework in the style of Reichenbach (1947), Kiparsky suggests that the Aorist as

²⁰ Cf. Geldner’s translation: ‘Vergangen sind die Sterblichen, welche die früheren Usas’ aufgehen sahen, jetzt hat sie sich von uns beschauen lassen; es kommen die, welche sie in Zukunft sehen werden.’

²¹ Cf. Geldner (1951b: 391): ‘Denn immer wieder haben wir uns eurer Hilfen, ihr gütigen Āḍitya’s, einst und jetzt gefreut.’

well as the Perfect express that the run time of the event is completed prior to the time of reference, but that the Aorist has a narrower set of readings than the Perfect:

A case can be made for the stronger claim that the perfect's potential uses include all uses of the aorist. Even the recent past and anterior past, the prime territory of the aorist, seems to be in principle available to the perfect as well. (...) I will adopt this idea here and treat the recent past and resultative readings as special cases of a single reading, here referred to as the R-reading. It is this reading which characterizes the Vedic aorist. (...) Once the aorist is so specified, it is not necessary to restrict the meaning of the perfect to exclude the R-reading. In fact, it is not possible to do so because the perfect has in principle the full range of perfect functions. It is simply that the aorist, being specifically restricted to the R-reading, blocks the perfect from being assigned that reading. And in those few verbs which lack an aorist, the perfect picks up the R-reading as well. (Kiparsky 1998: 36, 41–43)

Mumm (2002) makes a similar claim, suggesting that the Aorist has a stricter temporal scope ('Focus') than the Perfect:

Aorist wie Perfekt drücken die retrospective Perspektive aus. Der Aorist focussiert aber enger. Er lässt den Rückblick auf mittelbare—akkumulierte oder in grauer Vorzeit liegende—Ursachen nicht zu, und er bezeichnet auch nur einen aktuellen, keinen langanhaltenden Folgezustand. Das Perfekt, das diesen weiten Focus besitzt, kann seinerseits für den engen aoristischen Focus zwar gebraucht werden (Mumm 2002: 183)

These proposals are quite plausible and provide a relatively straightforward analysis of the relationship between the Aorist Indicative and Perfect Indicative. A potentially strong counter-argument against an analysis along these lines is that non-indicative modal forms belonging to the Aorist paradigm are far more frequently met with than corresponding forms belonging to the Perfect (cf. e.g. Kümmel 2000: 86–90 and Chapters Four and Five below). Given intra-paradigmatic coherence, this is exactly the opposite of what the hypothesis under discussion might be taken to predict. In order to counter this objection one would have to show that the formal inventory of the Aorist paradigm, the Perfect paradigm or both does not prove to be paradigmatically coherent.

In fact, the findings of Hoffmann (1967) could be taken as an indication that there is some degree of paradigmatic consistency in the Early Vedic non-indicative modal system. He notes that the Aorist and Present Injunctive are used in fundamentally different manners

in prohibitive sentences. The prohibitive Aorist Injunctive is typically used with a ‘preventive’ meaning, i.e. to request that a salient discourse referent abstains from performing a situation which has not yet begun at speech time. In contrast, the prohibitive Present Injunctive, in most cases, appears to have an ‘inhibitive’ meaning, i.e. to request that a salient discourse referent discontinues a situation which holds at speech time. Hoffmann explicitly suggests that this functional difference reflects the distinction between perfective and imperfective aspect:

Beim Inhibitivsatz ist die Handlung in ihrem Verlauf begriffen. Der Sprechende sieht die Handlung, die er „erwähnt“, also in der „Verlaufsschau“, wie E. Herrmann, NAGW. 1943, 15 p. 602 den imperfektiven Aspekt benennt. Beim Präventivsatz liegt die befürchtete Handlung, die der Sprecher „erwähnt“, in der Zukunft. Er sieht sie also nicht in ihrem Verlauf, sondern als bevorstehendes Ganzes. Das entspricht der „Gesamtschau“, womit E. Herrmann a.a.O. den perfektiven Aspekt bezeichnet. (...) Der Inj. Präs. (...) bezeichnet also die “Erwähnung” (“Nicht-Bericht”) einer Handlung im imperfektiven, der Inj. Aor. im perfektiven Aspekt (Hoffmann 1967: 105–106)

Given Hoffmann’s claim that the distinction between perfective and imperfective aspect is of subordinate relevance for the distribution of the Aorist Indicative and Imperfect, it appears that he assumes that this aspectual distinction is relevant in some parts of the inflectional paradigm, but not others. In fact, he advocates this view elsewhere:

Im vedischen Verbalsystem stehen Präsens- und Aoriststamm in strenger Opposition, die nur bei Konjunktiv, Optativ und Imperativ nicht in Erscheinung tritt. Dieser Gegensatz beruht, wie sich sowohl durch Vergleich mit dem Griechischen als auch durch den philologischen Befund im Veda selbst noch nachweisen läßt, auf der Unterscheidung von imperfektivem und perfektivem Aspekt (Hoffmann 1957: 128)

According to Hoffmann’s analysis, then, the Early Vedic verbal system represents a kind of split-aspectual system, where the distinction between perfective and imperfective aspect is relevant in only some parts of the verbal system. However, in the context of the counter-argument just posed against the hypotheses advocated by Kiparsky (1998) and Mumm (2002), this might be taken as an indication that, within the Aorist paradigm, the Aorist Indicative and Injunctive have similar aspectual properties and hence show some degree of paradigmatic consistency. From this perspective it is noteworthy that the Perfect Injunctive is much less frequently employed in prohibi-

tive clauses in Early Vedic than the Present and Aorist Injunctive (cf. Hoffmann 1967: *passim*, Kümmel 2000: 86–88).

Although most scholars seem inclined to assume that there is some semantic difference between the morphological categories belonging to the Present, Aorist and Perfect paradigms respectively, the claim that there is little or no semantic difference between the different sets of inflectional forms has occasionally been put forth. Vekerdi (1955) represents a radical version of the ‘syncretic’ approach to the Early Vedic inflectional categories. On the basis of a close reading of the first 32 hymns of the fourth book of the R̥gveda he concludes that:

[W]e may state that in the R̥gveda there is no semantic difference between the forms derived from the present system and those belonging to the aorist system either in respect of «Zeitart» («Aktionsart», aspect) or in respect of «Zeitstufe» (recent past and remote past). In the use of these two kinds of forms in indicative there is a considerable promiscuity to be observed and if one form or another is preferred it is on grounds of stylistic choice rather. Only in the indicative of the perfect system can we find some traces of an original difference between the perfect and the other two past tenses (Vekerdi 1955: 99)

According to this approach, the inflectional system of the Early Vedic verb represents a rich set of semantically more or less equivalent morphological doublets available for metrical and stylistic purposes. This claim finds some support in the fact that there are examples of semantically unmotivated morphological alternations in the language of the R̥gveda, for instance minimal pairs of the type *devāsas* and *devās* ‘gods (nom.pl.)’. However, such a hypothesis would have to somehow account for various distributional differences between the Aorist Indicative, Imperfect and Perfect of the type discussed previously in this chapter. For instance, why is it that the Aorist can be modified by temporal adverbs like *nú* ‘just now’ which denote a recent past reference time and never with adverbs like *ágre* ‘in the beginning’ which denote a remote past reference time, whereas the Imperfect never occurs with the former type of adverbs but is perfectly compatible with the latter? If there were no temporal or aspectual difference between the forms belonging to the Present, Aorist and Perfect paradigm, one would expect these categories to occur more or less freely in any type of context.

Baum (2006) represents a less radical version of the syncretic approach. His basic claim is that there is no clear aspectual difference

between the Aorist and Present Imperative and that their distribution is primarily motivated by metrical considerations:

The most likely difference between the aorist and present imperatives, should such a difference exist, would be aspectual; the present being imperfective and the aorist perfective. (...) This work will show that there is in fact no regular aspectual or semantic difference of the kind that exists within the Greek verbal system. The forms are used interchangeably and are in fact under most circumstances metrical variants. This situation exists, as the data suggests, because the aor. impv. was almost extinct at the time of the composition of the RV, existing only in formulae and as an archaism where it was metrically convenient to use it (Baum 2006: 65, 66)

However, the empirical basis on which these claims rest remains somewhat dubious. Baum acknowledges that the Aorist Imperative in some cases appears to have a 'perfective' meaning, but argues that such instances represent phraseological archaisms. Moreover, he observes that the proportion of Aorist Imperative forms is smaller in the later parts of the Rigveda than in the more archaic ones and argues that this shows that this inflectional category is moribund at the time when the Rigveda was composed. It seems that this line of argument runs the risk of being circular. Moreover, as Baum does not substantiate these general observations with any solid semantically based arguments, they ultimately appear to be based on vague impressions and do not provide solid evidence in favor of his conclusion. A similar critique could be raised against Veckerdi's claim. The hypothesis that there is no semantic difference between the Aorist and Present Imperative thus remains to be tested.²²

In my view, such a claim is justified only if a careful investigation of the data not only shows that there is a significant semantic agreement between a given morphological category and a corresponding category belonging to another paradigm, but also that there is a significant semantic difference between the category and one or more of the other corresponding categories belonging to the same paradigm. In other words, we need to make sure that the paradigm to which a given morphosyntactic form belongs is not intra-paradigmatically coherent and, at the same time, that the form does not show an inter-paradigmatic contrast with a corresponding form from a different paradigm.

²² I refer to Jamison (2009) for a more thorough discussion of Baum's theory of the Early Vedic Imperative.

If both these conditions are met, we would be faced with two or more semantically equivalent morphological variants which are available in the language for purely metrical purposes. The fact that that two morphosyntactic categories show superficial similarities in their behavior can hardly in itself count as compelling evidence for the assumption that the two forms do not have different semantic properties.

The scope of the present book

In the discussion of the various hypotheses proposed by earlier scholars a number of problems have been identified which significantly impede our understanding of the Early Vedic verbal system. A fundamental question concerns whether aspectual distinctions are grammatically relevant, in the sense that they systematically determine the distribution of grammatical forms, or whether temporal notions represent the only grammatically relevant semantic dimension. We also need to establish what type of temporal or aspectual notions are involved. A third set of questions concern whether the different forms belonging to the various paradigms are semantically coherent or whether we in fact find one or several paradigm splits in the Early Vedic verbal system. This book attempts to clarify these and related issues.

CHAPTER ONE

SITUATIONS, TIMES, WORLDS AND CONTEXTS

As stated in the Introduction, the main aim of this book is to clarify the semantic properties of the Early Vedic verbal categories. In order to achieve this, we need a theoretical framework which allows for distinguishing notions like *tense*, *aspect* and *temporal remoteness* in unambiguous and at the same time intuitively reasonable terms. Ideally, it should also formulate a set of intersubjectively accessible criteria which are designed to identify relevant semantic distinctions without being fully dependent on the bias imposed by the type of available textual evidence. Although no theoretical framework can fully make up for the lack of native speaker intuition, a deductively oriented framework which aims at reducing the subjective character of our semantic judgments has an advantage in this respect over an inductively oriented approach which primarily or exclusively relies upon one's own philological reading competence. This chapter attempts to outline a framework that satisfies these criteria by drawing on insights from formal semantics and linguistic typology.

The chapter is organized in two main sections. Section 1.1 outlines a model of temporal, aspectual and modal interpretation and discusses the most important basic assumptions on which this work rests, addressing issues like *Aktionsart* (1.1.1), the semantics of tense, aspect and mood (1.1.2) and the role of context-dependency, markedness and blocking in the organization of tense/aspect/mood systems across languages (1.1.3). Section 1.2 comprises a more specific discussion of some cross-linguistically recurrent aspect category types, namely the imperfective aspect (1.2.1), the perfective aspect (1.2.2), the neutral aspect (1.2.3) and the anterior or perfect aspect (1.2.4). It also contains a brief discussion of how temporal remoteness notions interact with aspect (1.2.5).

1.1 *The semantics of time and modality*

This section outlines some basic assumptions about the semantics of temporality and modality which constitute the theoretical framework of this work. Before entering a discussion of more specific, technical issues, it may be useful to discuss briefly how these two semantic dimensions interact in the linguistic construction of meaning. It is uncontroversial that one of the universal functions of sentences consists of relating individuals and situations to times and worlds. The semantic domains of *tense*, *aspect* and *Aktionsart* or *event structure* all somehow concern the relation between individuals, situations and times, whereas *modality* concerns the relation between individuals, situations and possible worlds. In this work *event structure* is understood as the temporally relevant dimension of verb meaning, *aspect* as a type of relation between situation descriptions and the time spoken about and *tense* as a type of relation between the time spoken about and the time of the utterance or some other contextually salient time. *Modality*, on the other hand, is regarded as a type of quantification over possible worlds. These rather general and abstract definitions will become clearer in the course of this chapter. They are intended to capture the informal definitions frequently found in relevant research literature where *tense* is understood as the temporal localization of a situation, *aspect* as the speaker's perspective on the internal temporal structure of a situation and *mood* as the speaker's attitude to the content of a proposition. As we shall see, these definitions have the advantage of ascribing a relatively clear and intuitively appealing division of labor to each of these three semantic domains. In this chapter I shall argue that all languages have the notional categories of aspect, tense and modality as each of these semantic dimensions represent a necessary part of the information conveyed by any given sentence in natural language. However, there is considerable variation across languages with regard to the types of aspectual, temporal and modal distinctions that are grammaticalized, in the sense that they systematically determine the distribution of different morphosyntactic constructions.

Most language-specific tense systems presuppose a linear concept of time and in the following this is taken to be a constitutive and hence

universal feature of natural language.¹ Along the lines of Krifka (1998), the linguistic concept of time may be regarded as a path structure, i.e. as a structure consisting of a strictly ordered infinite set of immediately adjacent intervals, all of which are connected by one and only one subpath, a subpath being understood as a proper part of a path. This definition corresponds quite well to our intuitive notion of time. By imposing a strict order on the intervals, this definition ensures that time is *directed*, in the sense that it has one and only one direction. The condition that the intervals are immediately adjacent ensures that time has no empty parts and hence is *dense*. The notion of connectedness by one and only one subpath ensures that time is *monodimensional*, as it excludes structures with two or more branches (cf. also Krifka 1998: 203–204). This yields an intuitively plausible notion of time, which may be taken to represent the linguistic concept of time in a psychologically realistic manner. In this work I shall assume that this concept of time is obligatorily referred to whenever we speak about situations. Time thus defined may be schematically represented as follows:



Figure 1.1: Time as a dense monodimensional directed path structure

At first glance, the notion of a possible world may seem mysterious and speculative. It may therefore give rise to some controversy. In this work, a possible world is simply understood as a set of propositions. Although one could in principle conceive of worlds where time is not organized in a linear manner, I shall disregard this possibility in the following discussion, presupposing that, at least as far as grammar is concerned, speakers typically conceive of possible worlds as parallel linear sequences of events. Accordingly, one may tentatively assume that linear time and possible worlds represent complementary dimensions constituting a semantic space in which situations occur. This model may be schematically represented as follows (cf. also Chierchia and McConnell-Ginet 2000: 262).

¹ Note, however, that Botne and Kershner (2008) claim that the tense systems in some Bantu languages appear to presuppose a more complex notion of time, involving linear structures along several dimensions.



Figure 1.2: Times and Possible Worlds as complementary dimensions in Semantic Space

I shall assume in the following that a model of this type constitutes the framework of temporal and modal interpretation in natural language. It is tempting to conclude that the basic function of temporal and modal markers is to specify the coordinates of situations in temporal and modal space. However, as will become apparent from the discussion later in this chapter, this view, although intuitively appealing, is too simplistic in some respects, particularly with regard to modal interpretation.

The present work is strongly influenced by the model-theoretic approach to linguistic semantics (cf. Dowty et al. 1981, Partee et al. 1990, Cann 1993, Heim and Kratzer 1998, Chierchia and McConnell-Ginet 2000). Formal semantics represents a useful tool for exploring the structuring of our intuition of time and of relations holding between situations, times and worlds. It provides a set of operations which enables unambiguous definitions of various relations between intervals of time and between situations and intervals of time. I wish to emphasize, however, that this theoretical perspective does not entail a naively ‘realistic’ approach to language in the sense that it presupposes a one-to-one relationship between individuals or situations in the real world and how we talk about them (cf. also Krifka 1998: 198). When I speak about individuals and situations I intend to capture these entities as language users perceive and speak about them. I am not interested in these entities as such, only in how they are conceptualized in language.

This work is based on a compositional approach to linguistic semantics, which, among other things, presupposes that the meaning of any given sentence is determined by the meaning of the constituents in the sentence and the rules by which they combine. For our present purposes, the most relevant types of meaningful constituents include those determining the aspectual, temporal and, to a somewhat less pervasive extent, modal interpretation of sentences. The compositional nature of meaning is particularly evident in the case of aspectual interpretation, which is generally acknowledged to represent the sum or product of the temporally relevant semantic properties of a given verbal predicate and the viewpoint introduced by the aspectual operator in the sentence. An important preliminary task thus is to isolate the temporally relevant elements of verb meaning. This is the subject of Section 1.1.1.

1.1.1 *The temporal dimension of verb meaning*

According to the compositional approach adhered to in this work, situation descriptions represent the basic building blocks of aspectual, temporal and modal interpretation. Verbal predicates, i.e. verbs and verb phrases, are taken to denote different types of situations in the same manner as nominal predicates denote types of individuals or substances and adjectival predicates denote types of properties. In the following discussion, I attempt to isolate a limited number of verbal predicate types which differ in aspectually relevant respects.

While it is generally acknowledged that some elements of verb meaning have systematic impact on the morphosyntactic properties of verbs, it is also clear that not all lexical semantic properties are equally relevant in this respect. From this general observation one may tentatively suggest that the meaning of any given verb consists of two components, namely a set of lexical entailments which are grammatically relevant in the sense that they systematically restrict the morphosyntactic behavior of the verb, and a set of lexical entailments which are grammatically irrelevant in the sense that they do not (systematically) determine its morphosyntactic properties. A reasonable assumption would be that the grammatically relevant lexical entailments of verbs typically represent rather general semantic properties, which are associated with a large number of verbs and verb classes, whereas their grammatically irrelevant lexical entailments above all include

particular and idiosyncratic semantic features which set a given verb apart from other verbs which describe similar, yet not quite identical situations. Grammatically relevant lexical entailments may be assumed to be universal in the sense that they determine the morphosyntactic behavior of any given verbal predicate.

A concrete example could be useful here. Consider the verbs *kill*, *murder* and *execute*. Although these verbs clearly denote situations which have several features in common, for instance that they express that the object argument undergoes a terminal change of state, and hence can be used interchangeably in many contexts, we may note some interesting differences between them. For instance, the verb *kill* is compatible with subject arguments which are not volitional in the sense of controlling the outcome of the situation, a feature not shared by the verbs *murder* and *execute*. Consider the acceptability difference between the following examples:

- (6) a. Pneumonia, not a drug overdose, killed Anna Nicole Smith (Internet)²
- b. *Pneumonia, not a drug overdose, murdered Anna Nicole Smith
- c. *Pneumonia, not a drug overdose, executed Anna Nicole Smith

With the present approach, the acceptability difference between (6a), on the one hand, and (6b) and (6c) on the other, originates in the different lexical entailments of these verbs. Whereas the verbs *murder* and *execute* presuppose a volitional subject argument, the verb *kill* is not associated with this entailment.

This is not to say, however, that *kill* demands a non-volitional subject. This verb is perfectly compatible with volitional subjects as well and can even be used interchangeably with *murder* as well as *execute* in some contexts, as illustrated by the following examples which all are taken from anti-death-penalty web pages and hence represent more or less the same type of discourse context.

- (7) a. In 2000, when George Bush was governor, the state of Texas murdered Shaka Sankofa (aka Gary Graham) (Internet)³

² <http://www.foxnews.com/story/0,2933,255418,00.html>

³ http://www.todesstrafe-usa.de/death_penalty/voices_tx_green.htm

- b. Despite an outpouring of protest from around the world, the state of Texas executed Karla Faye Tucker on February 3 (Internet)⁴
- c. A short time ago, the State of Texas killed Terry Lee Hankins (Internet)⁵

A straightforward way of accounting for this divergence would be to assume that the relevant lexical entailment, which may be labeled the 'volitional subject' feature, is privative. This would imply that verbs which are inherently associated with this entailment demand a volitional subject argument, whereas verbs which are not inherently associated with this entailment are underspecified with regard to this feature. Verbs which are underspecified with regard to this feature are taken to be compatible with volitional as well as non-volitional subject arguments. As this feature systematically restricts the morphosyntactic behavior of large classes of verbs, it may be taken to represent a grammatically relevant lexical entailment. It is therefore tempting to generalize this suggestion and hypothesize that grammatically relevant lexical entailments have the form of privative semantic features in the sense just discussed. On the other hand, we may note a significant difference in meaning between the verbs *murder* and *execute* as well, since the former typically implies that the situation was a crime or miscarriage of justice, whereas the latter implies that the situation was somehow rooted in a principle of law or justice. As these differences in meaning hardly seem to constrain the morphosyntactic behavior of these verbs, let alone to be sufficiently general to count as universal, they may be assumed to represent idiosyncratic semantic features of these verbs. This impression is strengthened by the fact that these features do not lend themselves easily to a privative analysis. It is not immediately evident that *execute* is inherently specified for a feature [+Legal Authority] and that the verb *murder* is underspecified and hence also compatible with this feature. In fact, the latter verb is rather used to emphasize that the situation is not recognized by the writer as an act of justice at all. This semantic difference between the two verbs rather appears to be equipollent in the sense that both verbs are

⁴ <http://www.nodeathpenalty.org/newab006/index.html>

⁵ <http://bearingfalsewitness.blogspot.com/2009/06/200th-execution-in-texas-under-gov-rick.html>

inherently associated with lexical entailments which are not shared by the other verb. If it is correct that grammatically relevant lexical entailments ultimately may be analyzed in terms of binary privative features, one might also assume that idiosyncratic semantic elements of meaning generally represent equipollent features. This hypothesis would provide a theoretically better founded distinction between the two types of lexical entailments. Future research will show whether these assumptions are correct. At present, however, I shall adhere to the assumption that grammatically relevant lexical entailments represent binary, privative semantic features which are universal in the sense that they are relevant for classifying any given verb.

Having clarified the role ascribed to grammatically relevant lexical entailments as opposed to idiosyncratic lexical entailments, we may now approach the main goal of this section—to distinguish a restricted set of lexical entailments which are temporally or aspectually relevant in the sense that they systematically constrain the aspectual and/or temporal interpretation of sentences. Broadly speaking, one may distinguish at least four aspectually relevant lexical entailments. One fairly uncontroversial entailment concerns the presence of a change of state [+Change of State]. Another commonly accepted entailment is the notion of progress through time [+Dynamic]. A third, slightly more controversial feature is the property of being instantaneous [+Punctual]. A fourth feature is the property of happening only once [+Single Event]. In the following, we shall attempt to clarify how these features interact in the construction of lexical meaning. Note, however, that the following account makes no claim of completeness in this respect (cf. Vendler 1967, Olsen 1994, Smith 1997, 1999, Rothstein 2004 for other, related taxonomies). Its main aim is to distinguish a few relatively simple notions which may be expected to have an impact on aspectual interpretation across languages.

It is convenient to begin the discussion with a lexical feature which is commonly acknowledged to be aspectually relevant, namely the notion of a change of state. As an illustration, one may contemplate the semantic difference between the verbs *defeat* and *fight*. Although these verbs are semantically closely related and can be used more or less interchangeably in many contexts (and hence may be taken to denote two overlapping sets of situations), *defeat* can be shown to be subject to various constraints which do not apply to *fight*. For example, while verb phrases containing *fight* are generally compatible with

adverbial modifiers like *for a decade*, which specify a time span of some duration, verb phrases containing *defeat* are generally incompatible with this type of adverbs, as illustrated by the acceptability difference between the examples below.

- (8) a. Goran Ivanisevic fought his inner demons and wandering mind for more than a decade before finally winning Wimbledon in 2001 as an unseeded wild card (Internet)⁶
- b. *Goran Ivanisevic defeated his inner demons and wandering mind for more than a decade before finally winning Wimbledon in 2001 as an unseeded wild card

These examples illustrate that these two verbs have a different impact on the aspecto-temporal properties of sentences in which they appear. Intuitively, this difference seems to relate to the fact that they make different claims about situations of roughly the same type. The verb *fight* highlights the process of fighting and does not in itself specify whether the outcome of the fight was successful or not. The verb *defeat*, on the other hand, describes the successful completion of the fight, something which, among other things, entails a change of state. Given the close semantic relationship between these two verbs, *defeat* appears to pick out a principled subset of the situations denoted by *fight*, something which may be taken to reflect that the relevant semantic difference may be regarded as privative. Moreover, the notion of a change of state is highly general and may be assumed to be relevant for the classification of any given verb. This entailment thus fulfils the conditions defining grammatically relevant semantic properties and represents an aspectually relevant lexical entailment in the technical sense intended here.

Another fairly uncontroversial aspectually relevant lexical entailment concerns the difference between static verbs like *hate* and dynamic verbs like *walk*. An important difference between static and dynamic verbs concerns how they relate to time. Static verbs typically denote situations which are conceptualized as homogeneous down to minimal intervals in the sense that they remain constant at all times through a given period of time. Dynamic verbs typically denote situations which are conceptualized as homogeneous down to minimal parts and which

⁶ http://www.iht.com/articles/2004/06/25/tennis_ed3__19.php

evolve through time (cf. Krifka 1998). Among other things, this semantic difference may be invoked to explain the fact that dynamic verbs tend to be compatible with so-called adverbs of motion like *slowly*, whereas the combination of static verbs and adverbs of this type tends to be somewhat odd.

- (9) a. He walked slowly, and paid attention to where he was going
(Internet)⁷
- b. ?He hated him slowly

Intuitively, adverbial modifiers like *slowly* determine the relative frequency with which each minimal part of the situation obtains, hence presupposing that the situation evolves through time. As a minimal part may be taken to represent a more complex notion than a minimal interval, it is reasonable to understand the difference between static and dynamic verbs in privative terms. According to this approach, dynamic verbs may be taken to be associated with the lexical entailment that the situation does not hold at intervals below a certain extent, whereas state verbs are underspecified in this respect. As this semantic distinction is highly general and may be assumed to be relevant for the classification of any verb, it may be regarded as aspectually relevant.

A third type of entailment which is often regarded as aspectually relevant concerns the difference between punctual and durative verbs. In recent years, various scholars have questioned the relevance of this semantic distinction (cf. e.g. Verkuyl 1993: 46–50). However, a case could be made for the claim that achievement verbs like *come* or *win* differ from instantaneous achievement verbs like *astonish* or *explode* with regard to how the situation is conventionally conceptualized (cf. also Dini and Bertinetto 1995). A verb like *come* is typically associated with the presupposition that the subject argument has moved along a path which culminates in a change of state with the result that the referent is present. A similar preliminary process is implicit in the semantics of the verb *win*. It is not clear that *astonish* or *explode* are conventionally associated with any similar preliminary process. Verbs of the latter type are typically construed as involving only a change

⁷ http://www.fictionpress.com/s/1753464/1/Identity_Crisis

to the state specified by the verb and may be characterized as strictly punctual in this respect. They are not merely underspecified with regard to a preliminary process, but generally seem to exclude any preliminary process culminating in the event, which, as a consequence, is conceptualized as strictly punctual. This semantic difference may be invoked to explain the fact that regular achievement verbs like *win* are perfectly acceptable in the Progressive, whereas punctual or instantaneous achievement verbs like *explode* are unusual in the Progressive.

- (10) a. But while Red Bull was winning the race, its chief designer Adrian Newey missed the event (Internet)⁸
 b. ?The bomb was exploding

The main function of the English Progressive is to focus an internal interval of the situation denoted by the predicate. With regular achievement verbs, the Progressive picks out an interval of the preliminary process associated with the situation. Instantaneous achievement verbs, on the other hand, denote a situation which is conceptualized as punctual in the sense that it is not associated with a preliminary process. There is therefore no interval to be focused by the Progressive. According to the approach developed here, the distinction between punctual and non-punctual verbs may be accounted for as a privative semantic opposition, verbs like *explode* being associated with the entailment that the situation is punctual, whereas verbs like *win* are underspecified in this respect. The distinction between punctual and non-punctual verbs is very general and hence may be regarded as a grammatically relevant semantic feature.

A fourth semantic feature which may be regarded as grammatically relevant concerns the difference between verbs denoting a situation typically conceptualized as only taking place at or during a unique time interval (e.g. *know*) and verbs denoting a situation which may take place several times (e.g. *sleep*). Among other things, these two classes of verbs differ with regard to their compatibility with iterative adverbs like *frequently*.

⁸ <http://www.hiltonracing.com/news-and-features/will-buxton/will-buxton---may-update/>

- (11) a. He frequently slept while the other birds were active
(Internet)⁹
b. ?He frequently knew him

As iterative adverbs contribute directly to the aspectual interpretation of a sentence, it is reasonable to regard this semantic distinction as an aspectually relevant lexical entailment. From our perspective, this assumption is corroborated by the fact that the distinction between singular events and non-singular events constitutes a very general distinction which may be analyzed in binary privative terms. According to this analysis, verbs like *know* would be associated with the entailment that the situation happens only once, whereas verbs like *sleep* would be underspecified in this respect.

In the course of this discussion four aspectually relevant lexical entailments have been distinguished, namely [+Change of State], [+Dynamic], [+Punctual] and [+Singular Event]. Table 1.1 below contains a classification of some recurrent verb types according to these semantic features. Note that this does not represent an exhaustive classification of possible verb types (cf. also Vendler 1967).¹⁰

Table 1.1: Some recurring types of aspectual verb classes

	[+Change of State]	[+Dynamic]	[+Punctual]	[+Singular Event]
'Stage-level States'				
'States'				+
'Activities'		+		
'Semelfactives'		+	+	
'Instantaneous Achievements'	+		+	
'Achievements'	+			
'Accomplishments'	+	+		

⁹ <http://www.finchaviary.com/Maintenance/OurTragicExperience.htm>
¹⁰ For instance, the table does not include so-called degree achievements like *cool*, *widen* etc. (cf. Dowty 1979: 88–90, Hay et al. 1999).

So far we have isolated a limited set of lexical entailments which may be taken to systematically contribute to aspectual meaning. However, although it is uncontroversial that lexical factors play an important role in this respect, semantic features at verb phrase level are also relevant for the aspectual interpretation of a given sentence. Consider for instance the following examples:

- (12) a. He builds houses for a living in Connecticut's Fairfield County (Internet)¹¹
- b. He built three houses, one in Lake Martin, Alabama, another in suburban Birmingham, another in Palm Beach (Internet)¹²
- c. He ran along the soft sand, trying to look like a tourist out for a jog with a couple of tins of paint in a school bag (Internet)¹³
- d. He ran to the store and bought a carton of Parliaments (Internet)¹⁴

The predicates *build three houses* and *run to the store* have a property in common, namely that they are only valid descriptions of a subset of the situations which are eligible to be denoted by the predicates *build houses* and *run*, respectively. This subset contains only those situations which are fulfilled when they reach the endpoint entailed by the quantifier *three* and the prepositional phrase *to the store*. More precisely, there is an asymmetric entailment relation between the predicates *build three houses* and *build houses* on the one hand, and *run to the store* and *run* on the other, in the sense that the former entails the latter but not vice versa.

Intuitively, the predicates *build three houses* and *run to the store* may be understood as denoting a type of situation conceptualized as having a clearly identifiable internal endpoint which measures out the situation, as it were. In contrast, predicates like *build houses* and *run* denote situations which are not conceptualized as having a natural endpoint. Henceforth, predicates specifying an internal endpoint for the situation they denote are characterized as 'telic' and predicates

¹¹ http://www.projo.com/business/content/projo_20060611_mwater.7e8ff61.html

¹² <http://transcripts.cnn.com/TRANSCRIPTS/0305/29/se.02.html>

¹³ http://www.morrisgleitzman.com/books/fst_warts.html

¹⁴ <http://www.commondreams.org/headlines03/0303-06.htm>

lacking this entailment as ‘atelic’. Note that telicity is taken to be a property of verb phrases, not of lexical verbs.

A simple telicity test involves checking whether a given predicate is compatible with adverbial expressions locating the endpoint of the situation at the end of a time interval of a certain duration, like ‘in x time’, or whether they are compatible with adverbials specifying the duration of the situation, like ‘for x time’ (cf. also Dowty 1979: 60, Rothstein 2004: 24–28). Telic predicates are compatible with the first, terminative type of adverbials, but are generally incompatible with the second, durative type of adverbials. Atelic predicates, on the other hand, are incompatible with terminative adverbials, but perfectly compatible with durative adverbs. Consider the following examples:

- (13) a. In Texas, the epicentre of the juvenile death penalty, George W Bush’s replacement, Rick Perry, has executed 71 people in three years (*for three years) as Governor including 4 juveniles (Internet)¹⁵
- b. [I]n London alone, eight hundred men died in one week (*for one week) in July (Internet)¹⁶
- c. For years (*In a few years), Iran has executed men for having sex (Internet)¹⁷
- d. For more than ten years (*In more than ten years) people died (Internet)¹⁸

There is a growing consensus in the research literature that the quantificational properties of what may be labeled the ‘distinguished verbal argument’ or ‘internal verbal argument’ determine whether a given verb phrase is telic or atelic (cf. e.g. Verkuyl 1993: 14–23, Tenny: 1994: 10–35, Krifka 1998: 209–219, Rothstein 2004: 6–14). The terms ‘distinguished verbal argument’ or ‘internal argument’ will be used alternately to denote the argument represented by the direct object of

¹⁵ <http://www.ccadp.org/ralphdavis.htm>

¹⁶ <http://www.sacred-texts.com/etc/fcod/fcod13.htm>

¹⁷ <http://www.aegis.com/News/WB/2005/WB050915.html>

¹⁸ <http://www.amazon.ca/Frozen-Thames-Helen-Humphreys/dp/product-description/0771041446>

two-place verbs and the subject of one-place unaccusative verbs. The notion of specific or definite quantity has proven useful to capture the difference between predicates like *build three houses* and *build houses* which differ with regard to whether the internal argument is specifically quantified or not. Note that in English the definite article has a similar effect as a quantifier when the internal argument consists of a mass noun or a count noun in the plural, as illustrated by the difference between *drink the water* and *eat the apples* on the one hand, and *drink water* and *eat apples*, on the other. Count nouns in the singular are always specifically quantified.

The examples in (13) illustrate that a specifically quantified internal argument represents a necessary condition for telicity. However, it is doubtful as to whether this property represents a sufficient condition for a verb phrase to have a telic meaning. For instance, state predicates like *own three villas* or *know six languages* have a specifically quantified internal argument, but generally seem to fail the telicity tests (cf. **He owns three villas in a year* or **He knows six languages in a year*). These considerations suggest that some additional semantic properties are needed to arrive at a precise understanding of telicity.

One important difference between telic quantified predicates like *execute 71 people* and *build three villas* and atelic quantified predicates like *own three villas* and *know six languages* concerns the fact that they predicate two fundamentally different relationships between the situation and the internal argument. Whereas the atelic quantified verbal predicates presuppose that the internal argument remains constant through the process, the telic predicates presuppose that it undergoes an incremental change of state which has a clearly defined endpoint. The notion of an incremental relation between the situation and the internal argument thus seems crucial for understanding the semantics underlying the notion of telicity. An incremental relation may be preliminarily defined as a relation between a verb or verb phrase *x* and an argument *y*, such that for each interval of the run time of the situation denoted by *x* the argument *y* gradually moves towards the completion of the change of state implied by the verb (cf. also Krifka 1998: 210–213, Rothstein 2004: 91–122). This rather vague definition allows for different types of incremental relations. For instance, the internal arguments of verbal predicates like *build three villas* and *execute 71 people* undergo two diametrically opposed types

of incremental changes, resulting in their completion and destruction, respectively. However, the above definition is also intended to include telic predicates like *run to the store* where the goal phrase and not the verb determines the point at which the incremental process reaches its conclusion.

The approach to incrementality just discussed furnishes a set of intuitively clear constraints which may help to delimit the verbs which need only a specifically quantified second argument to receive a telic reading. For instance, a verb like *own* fails to meet the criterion that an incremental relation presupposes an ordered set of parts of the situation. A predicate like *he owned three houses* typically does not impose an ordering on the three unique sub-events of owning a unique house. One might counter that a similar point could be made with regard to the predicate *build*, as it is perfectly conceivable that one builds three individual houses parallelly at the same pace. However, even in such a case each unique sub-event included in each unique building situation represents a further step towards the completion of the situation denoted by the verbal predicate. In contrast, none of the unique sub-events of each of the unique owning events necessarily represent a step towards the completion of the situation. In the default case, predicates like *own three houses* simply represent the situation as an atemporal state.¹⁹ Simplifying matters slightly, we shall assume that the notion of incrementality is linked to the change of state feature.

Another salient group of predicates which also tend to have a telic meaning are represented by verb phrases consisting of a motion verb and a goal phrase, e.g. *go to the park*. However, although predicates of this type are generally taken to be inherently telic, there is some evidence that they may sometimes assume an atelic reading as well. Consider for instance the following examples:

¹⁹ However, with the above discussion kept in mind it is not surprising that predicates of this type are marginally compatible with a telic reading. Compare for instance the following example: 'In a year he owned three of the finest apartment buildings in Harlem, a fleet of expensive cars, a home on Long Island, and several thousand acres of farmland in Virginia' (http://www.crimelibrary.com/gangsters_outlaws/gang/harlem_gangs/4.html). This statement clearly expresses that the subject acquired these properties in the course of a year, i.e. it is interpreted as a (derived) accomplishment. Within the framework developed here, data like these can be straightforwardly accounted for as reflecting that state verbs like *own* are underspecified for the change of state feature and hence compatible with it.

- (14) a. For years (*In many years), people have gone to the park or the mall or the beach, to see and be seen. (Internet)²⁰
- b. And remember in the last two weeks (*for the last two weeks), seven Labor front benchers have gone to the back bench (Internet)²¹

These examples illustrate that goal phrases like *to the park* or *to the back bench* are necessary but not sufficient to render verb phrases with undirected motion verbs like *go* telic. In the first example, the subject argument is not specifically quantified and the resultant verb phrase is atelic. In the second case, however, the subject argument is specifically quantified and the resultant verb phrase is telic.

This particular point neatly illustrates one of the great advantages of representing the aspectually relevant lexical semantic features as privative. Given that verbs like *go* are underspecified with regard to the change of state feature and hence compatible with it, it is reasonable to regard goal phrases like *to the park* as devices for unambiguously activating a derived change of state reading. It is significant that goal phrases do not necessarily induce a telic reading. Like simple change of state verbs, they demand that their distinguished argument, represented by the subject argument, is specifically quantified in order to achieve a telic reading.

The previous discussion suggests that one might distinguish a limited set of predicate types at verb phrase level which differ with regard to two properties, namely whether they entail an incremental relation between the predicate and its distinguished argument or not, and whether their distinguished argument is specifically quantified or not. Table 1.2 summarizes the characteristic properties of the three most important predicate types, namely State, Process and Telic Event predicates.

²⁰ <http://youtubestars.blogspot.com/2006/06/faq-frequently-asked-questions.html>

²¹ <http://www.abc.net.au/worldtoday/content/2004/s1225852.htm>

Table 1.2: The semantic properties of the situation types at verb phrase level

	Incremental Theme	Specific Quantity
States		(+)
Processes	+	
Telic Events	+	+

This concludes our discussion of the temporally relevant semantic properties of verbs and verb phrases.

1.1.2 *Tense, aspect and mood as relations in temporal and modal space*

Assuming that verbs and verbal predicates represent descriptions of different types of situations much in the same manner as nouns and nominal predicates represent descriptions of different types of individuals and substances, the basic function of aspectual, temporal and modal operators is to specify the localization of situations in semantic space, mediating between situation descriptions, times and worlds. This section elaborates on these suggestions.

This work is based on the assumption that sentences implicitly refer to four distinct temporal parameters, namely the time of the utterance or *speech time* (t_s), the run time of the situation or *event time* (t_e), the time spoken about or *reference time* (t') and the local *evaluation time* (t_0). This approach is inspired by the framework proposed by Hans Reichenbach (cf. Reichenbach 1947: 287ff.). However, the framework employed in this work differs in two important respects from Reichenbach's original proposal. First, whereas Reichenbach originally conceived of the temporal parameters as points or instants in time, we shall assume that the values of the parameters are intervals rather than instants, instants being treated as minimal intervals (cf. Dowty 1977, 1979, Parsons 1990: 179–182). Second, Reichenbach suggested that temporal expressions implicitly refer to three different temporal parameters, but here it shall be argued that (at least) four temporal parameters are involved in the temporal interpretation of a given sentence (cf. e.g. Kamp and Reyle 1993: 593–600, Eberle and Kasper 1994: 156–160). With these slight modifications, the Reichenbachian framework is not only equipped to handle a great variety of temporal relations but may be used to accommodate various aspectual relations as well (cf. Klein 1995: 686–694, Kiparsky 1998: 37–43, Kratzer 1998).

At first glance the temporal information conveyed by a given sentence appears to be relatively simple. For instance, an English sentence in the Simple Past typically expresses that an instance of the situation denoted by the verb has occurred prior to the time of speech. Consider the following examples:

- (15) a. Brutus killed Caesar (Internet)²²
 b. I saw him yesterday morning (Internet)²³
 c. Pioneer will astonish, astound and always entertain (Internet)²⁴

These simple examples apparently only presuppose two temporal parameters, namely the time of utterance or speech time (t_s) and the run time of the situation or event time (t_e). The assumption that four temporal parameters are necessary for interpreting a sentence may therefore seem superfluous. For instance, the first sentence apparently only presupposes that the situation denoted by the verb took place at some indefinite time prior to speech time. The second sentence presupposes that the situation took place within a definite temporal frame located prior to speech time. The third sentence expresses that the situation extends over every time after speech time. These temporal relations may be schematically represented as follows:

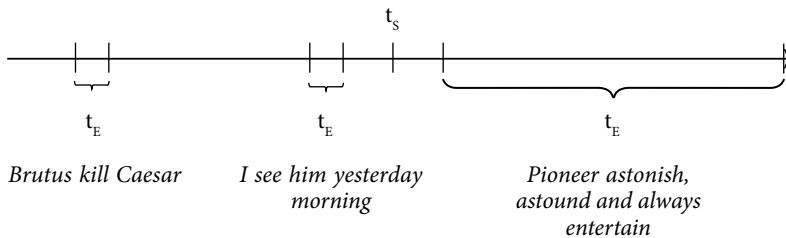


Figure 1.3: The time relations denoted by the English Simple Past and compound future

²² <http://flag.blackened.net/forums/viewtopic.php?f=18&t=76043>. The full fragment reads:

Brutus killed Caesar because he feared his friend meant to betray the republic and become king.

²³ http://web2.court tv.com/talk/chat_transcripts/2001/0306santee.html

²⁴ http://findarticles.com/p/articles/mi_hb5057/is_200309/ai_n18417803

An analysis along these lines implies that tense relations like *past* or *future* may be regarded as functions from event time to speech time and it therefore remains unclear why we should need two further temporal parameters. Note, however, that a binary distinction between event time and speech time is not immediately able to account for the acceptability difference between sentences like the following:

- (16) a. Peter arrived (yesterday)
 b. Peter has arrived *(yesterday)

Whereas a Simple Past form is fully compatible with temporal adverbs specifying a definite past time, as illustrated by example (16a), a Present Perfect form is distinctly odd in this type of environment, as illustrated by example (16b). On the assumption that temporal interpretation involves only two temporal parameters, both the Simple Past form *saw* and the Present Perfect form *have seen* express that the event time is located prior to speech time, but it remains unclear why the former is compatible with adverbial phrases like *yesterday morning* and why the latter is not.

Semantic differences of the type just discussed motivated Reichenbach's hypothesis that sentences implicitly refer to a third temporal parameter, namely the so-called *reference time* (*t'*) in addition to event time and speech time (cf. Reichenbach 1947: 290, Binnick 1991: 111). Reference time may be preliminarily defined as the time which is spoken about, and is considered independent of speech time as well as event time. The assumption of a separate reference time parameter suggests a straightforward way of accounting for the semantic difference between the Simple Past and the Present Perfect illustrated by the examples in (16). Specifically, the Simple Past form may be taken to express that the reference time is prior to speech time, whereas the Present Perfect would indicate that the reference time overlaps with speech time. It should be kept in mind that both these sentences denote an event time which is prior to speech time. For the purpose of clarity the Simple Past form will be assumed to imply that reference time includes event time in cases like this, whereas the Present Perfect is taken to entail that the event time is prior to reference time. The difference between the two time-relations conveyed by the Simple Past and the Present Perfect respectively may be schematically represented as follows:

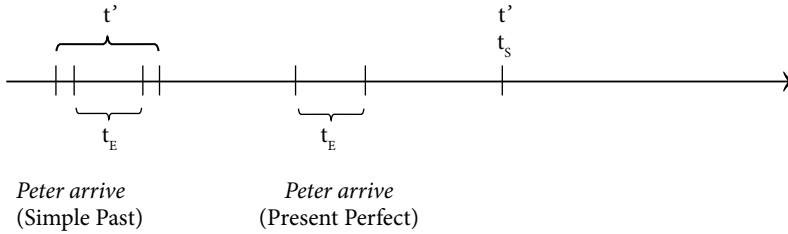


Figure 1.4: The time relations denoted by the English Simple Past and Present Perfect

The reference time of a given sentence is typically left implicit or provided by the discourse context, but in some cases may be specified by temporal adverbial expressions. For example, the sentence in (15a) simply tells us that the situation denoted by the verb phrase *Brutus kill Caesar* has occurred at some indefinite, remote time in the past. The exact localization of this time is left undefined. This definition of the semantic past may seem overly unspecified, as nothing prevents it from denoting the maximal time interval prior to speech time. On closer examination, however, it seems to capture our basic intuitions about the temporal relations expressed by sentences with past time reference (cf. von Stechow 1995a: 48ff., 1995b: 17). For instance, for a sentence like *Brutus killed Caesar* to be true, it is necessary and sufficient that there is some unspecified time prior to speech time/evaluation time during which an act of killing occurred which had Brutus as its agent and Caesar as its theme.

In contrast, example (15b) contains the adverbial phrase *yesterday morning* which unambiguously specifies a definite past reference time for the sentence and hence imposes severe restrictions on its temporal interpretation. The sentence would for instance be judged false if the speaker turned out to have seen the person in the morning on the same day as the sentence was uttered. In other words, the frame adverb *yesterday morning* entails that the reference time interval comprises exactly that part of the time axis which is constituted by the morning on the day before the day when the sentence is uttered. Formally speaking, frame adverbs like *today*, *yesterday*, *in my childhood* typically introduce relatively specific right and left boundaries for the reference time interval, thus reducing the validity of the proposition to a subinterval of the rather unspecific reference time specified by the semantic tense categories. Another group of frame adverbs, e.g. *previously*,

formerly, in the past have a less specific time reference and they shall be assumed to be interpreted as denoting the semantic past. Durative adverbials like *for ten years* and terminative adverbials like *in ten years* are taken to primarily relate to event time or, more precisely, to indicate that the event time interval has the same duration as the reference time interval.²⁵ Universal quantifier adverbs like *always* and existential quantifier adverbs like *sometimes* are assumed to have a similar function, typically involving quantification over times and events.

The well-known functional difference between the English Past Progressive and Simple Past in narrative discourse constitutes another argument in favor of assuming that sentences refer to three rather than two temporal parameters (cf. also Dowty 1986, Nerbonne 1986). Consider the following examples:

- (17) a. Two men robbed the Adult World store on Vulture Street, Woolloongabba last night about 10 o'clock. One man entered the store and began speaking with the male attendant. A second man entered the shop shortly after, grabbed the attendant and threw him to the ground (Internet)²⁶
- b. The incident giving rise to this litigation took place in the parking lot of a roadside restaurant in Kansas at about 11:30 p.m., December 16, 1975. As plaintiff-appellant Chester A. Fisher, a black man, was entering the front door of the Crossroads Cafe, defendants Lenus Shamburg, Charles Howell and his son Bill, all white men, were leaving (Internet)²⁷

The Simple Past has a different effect on the temporal progression of the discourse than the Past Progressive. The Simple Past form *entered* in (17a) implies that the situation was completed prior to the following situation, whereas the Past Progressive form *was entering* in (17b) implies that the situation was temporally overlapping with the following situation. In both cases, the event time is located prior to speech time. The semantic difference between these two categories concerns

²⁵ Piñon (1999) provides a more sophisticated analysis of the semantics of durative adverbials.

²⁶ <http://www.police.qld.gov.au/News+and+Alerts/Media+Releases/2004/01/24.htm>

²⁷ <http://bulk.resource.org/courts.gov/c/F2/624/624.F2d.156.78-1711.html>

how they represent the relationship between the situation and the immediate context. One way of accounting for the different effects of these two aspectual categories on the temporal progression of the above discourse fragments is to assume that, in such cases, the Simple Past implies that event time is included in reference time, whereas the Past Progressive entails that reference time is properly included in event time. This analysis may be schematically represented as follows:

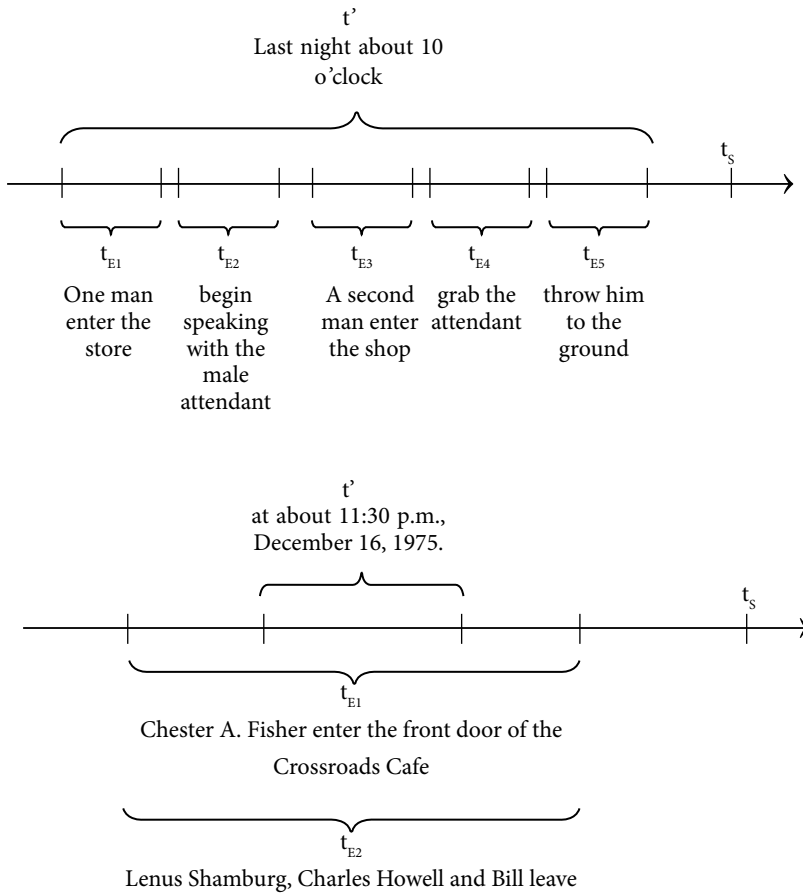


Figure 1.5: The time-relations expressed by the English Simple Past and Past Progressive

In the cases just discussed, the reference time is explicitly specified by a temporal adverbial construction. In the absence of an explicit reference time marker, the reference time of a given non-initial sentence in a context is typically provided by the immediately preceding sentence,

i.e. the reference time is set by temporal anaphora (cf. Partee 1973: 605, 1984: 252–265, Hinrichs 1986: 66–73, Kamp & Reyle 1993: 521ff.). In contrast, the reference time of a context-initial sentence with past time reference is not determined anaphorically but deictically. It is reasonable to assume that the reference time in that case is interpreted by default as the maximal temporal interval prior to speech time in the absence of an explicit temporal adverb. Consider for instance the following example:

- (18) Fred got up at 5. He took a long shower, got dressed and ate a leisurely breakfast. He left the house at 6:30 and arrived at 10.

The first sentence in this context fragment only indicates that the situation has occurred at some indefinite time prior to speech time. In this respect, the event denoted by the context-initial sentence represents a vague ‘left boundary’ for the reference time to which the following predicates relate. The ‘right boundary’ of the reference time is provided by speech time. In contexts of this type, the non-initial sentences typically relate to the situation denoted by the context-initial sentence. For instance, in the above example, the second sentence denotes a situation which is located immediately after the situation denoted by the initial sentence, whereas the third sentence denotes a situation which is located after the situation in the second sentence and so forth. The time-relational constellation expressed by these three sentences may be schematically represented as follows:

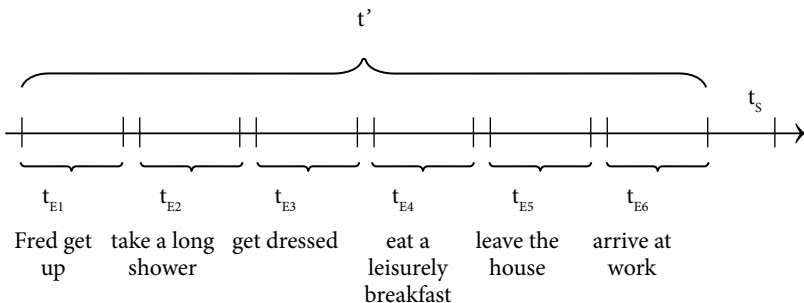


Figure 1.6: The time-relation represented by example (18)

Another argument which has traditionally been invoked in favor of the assumption of a reference time parameter concerns the use of the English Past Perfect to express that a situation is past relative to

another situation which is located prior to speech time (cf. Reichenbach 1947: 297). Henceforth, I refer to this temporal relation as the ‘relative past relation’ or the ‘relative past reading’. According to the classical analysis of the Past Perfect, it expresses that the event time is located prior to reference time and that reference time is located prior to speech time. However, this analysis of the relative past relation raises some complicated issues. For one thing, English Simple Past forms are sometimes used to express the relative past relation under certain circumstances, apparently being interchangeable with the Past Perfect without any conceivable difference in meaning, as illustrated by the following examples:

- (19) a. Tom arrived. Sue arrived the day before (Nerbonne 1986: 88)
- b. I kept going at a slow pace just as a courtesy to him because I saw him once earlier and knew he was hitting the canyons as well (Internet)²⁸
- c. Tom arrived. Sue had arrived the day before (Nerbonne 1986: 89)
- d. I kept going at a slow pace just as a courtesy to him because I had seen him once earlier and knew he was hitting the canyons as well

If it is correct that the relative past relation expresses that the event time is prior to the reference time and that the reference time is prior to speech time, it remains unclear how this reading of the Simple Past is related to its salient simple past reading, which implies that the reference time includes the event time and that the reference time is located prior to speech time.

Interestingly, constructions which are typically associated with a present reference time show a similar behavior. For example, in some cases the English Simple Present denotes a situation which is located prior to speech time. This is the so-called ‘historical’ reading of the Simple Present which may be illustrated by the following examples:

²⁸ <http://www.iwsti.com/forums/members-journals/72842-making-memories.html>

- (20) a. Last week, I see the Chargers put up 35 points in the first half and check the box score to see whether Tomlinson accounted for three or four of the touchdowns (Internet)²⁹
- b. Then 4 years ago he meets ScouseSis in, of all places, an airport departure lounge (Internet)³⁰

Moreover, adverbs which typically refer to speech time may in some cases refer to another contextually salient time, as illustrated by the following examples:

- (21) a. In the meantime, he needed to move fast. Today he would order around-the-clock staffing to get the genetic center on line, damn the cost (Internet)³¹
- b. By 1997, four years into the Supercar project, Gray was convinced that he finally had overcome the technical obstacles to his hydraulics plan. Now he was ready to start building his Supercar (Internet)³²

In these cases, the adverbs *today* and *now* have past time reference, clearly involving a shift in the temporal anchoring of the adverb from speech time to some other time. This particular type of temporal relation may be labeled 'shifted deixis' (cf. e.g. Smith 2004: 598). Within the framework developed so far, both the historical reading of the Simple Present and adverbial constructions with shifted deixis apparently presuppose that the temporal relation 'speech time included in reference time' may be interpreted as 'reference time prior to speech time'. It remains unclear how this temporal shift is possible, but it resembles the relative past reading of the Simple Past where the reference time is interpreted as past relative to a contextually salient time which is not identical with speech time.

These marked readings have been widely discussed, but few scholars have noted that they may represent different aspects of one and the same temporal relation (cf. however, Kiparsky 1998: 38ff.). Basically,

²⁹ http://weblogs.baltimoresun.com/sports/football/blog/2007/11/week_9_nfl_picks_1.html

³⁰ http://grocerjack.blogspot.com/2006_09_01_archive.html

³¹ <http://www.jdlasica.com/novel/celebrity13.html>

³² <http://www.chicagotribune.com/news/specials/chi-shiftinggear-special,0,3533667.special>

there are three ways of solving this problem in the research literature. Some scholars assume that speech time represents a variable which can be anchored to other contextually salient times (cf. e.g. Hornstein 1990: 10–12). This approach has the unfortunate consequence of depriving the Reichbachian model of its intuitively appealing emphasis on the fundamental importance of the deictic dimension of temporal meaning (cf. Kiparsky 1998: 38, 48–51 for additional arguments against Hornstein's approach). Other scholars account for one or more of the readings by assuming that the reference time may be shifted by contextual factors (cf. e.g. Comrie 1985: 122–130, Smith 2004: 597–599). This approach is not implausible, as it would represent the reference time parameter as a temporal variable which may be bound or free according to context. However, it runs into the difficulty that the reference time parameter apparently plays a dual role in so-called extended flashbacks. Consider the following examples:

- (22) a. Fred arrived at 10. He had got up at 5; he had taken a long shower, had got dressed and had eaten a leisurely breakfast. He had left the house at 6:30 (after Kamp & Reyle 1993: 594)
- b. Fred got up at 5. He took a long shower, got dressed and ate a leisurely breakfast. He left the house at 6:30 and arrived at 10.

These two contexts may be taken to refer to exactly the same set of temporally ordered events beginning with Fred's getting up at 5 and ending with his arrival at 10. Along the lines suggested above, one might say that the former situation constitutes the left boundary of the reference time interval, whereas the latter situation constitutes the right boundary of the reference time. This analysis can be straightforwardly applied to example (22b) and the same relation is expressed by the passage in example (22a). From this perspective, the Past Perfect forms have a sequential reading, the first Past Perfect form constituting the left boundary of the reference time interval which includes the following discourse.

On the other hand, the traditional analysis of the Past Perfect presupposes that it expresses that the event time is prior to the reference time and that the reference time is prior to speech time. According to this analysis, the reference time of the Past Perfect forms in (22a) would be provided by the Simple Past form in the first sentence. The difference between these two parameters may be schematically represented in the following manner:

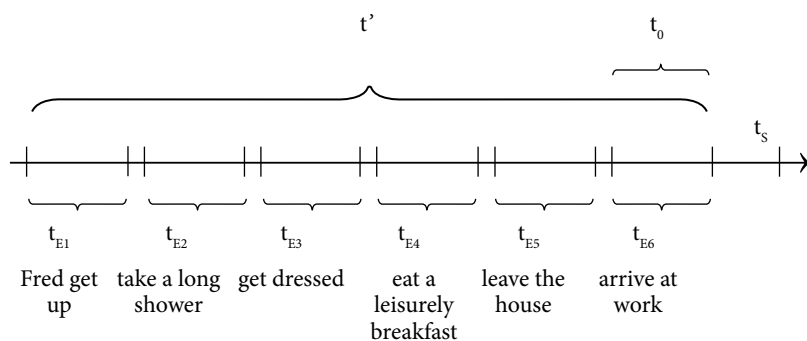


Figure 1.7: The two reference time parameters presupposed by the Past Perfect in extended flashbacks

Examples like these presuppose two distinct notions of reference time, which are not differentiated in the other cases discussed so far. First, there is the familiar reference time parameter (t') which constitutes the temporal frame of the narrative discourse. Second, there is another temporal parameter (t_0) relative to which the temporal localization of the reference time is determined. The second parameter (t_0) is alternatively referred to as ‘perspective time’ (cf. Kamp & Reyle 1993: 594ff., Eberle and Kasper 1994: 156–160, Kiparsky 1998: 38) or ‘distinguished time variable/(local) evaluation time’ (cf. von Stechow 1995b: 369). These terms are intended to capture the intuition that this parameter represents the perspective from which the temporal localization of the situation is evaluated. This temporal parameter typically coincides with speech time, but may also be anchored in some other, contextually salient time. These observations suggest that the Past Perfect obligatorily selects a past time as its evaluation time.

Some readers might object that the evaluation time parameter appears to be a theoretical tool created *ad hoc* to account for a marginal reading of the English Past Perfect. However, it turns out to be useful for explaining some of the other phenomena discussed previously in this section. For instance, it suggests a straightforward way of harmonizing the apparently diverging simple past and relative past readings of the English Simple Past, illustrated in (19). The simple past reading implies that the evaluation time variable (t_0) is identified with the speech time (t_s), its default value. Under the relative past reading, on the other hand, the evaluation time variable is identified with some contextually salient time which is prior to speech time. A similar analysis could account for the historical use of the Simple Present illustrated by the

examples in (20) and the shifted deixis of the adverbial constructions in (21).

Within the framework developed here, *aspect* may be defined as a type of relation between reference time (t') and event time (t_e), whereas tense may be defined as a type of relation between reference time (t') and the local evaluation time (t_0) which typically, though not necessarily, coincides with speech time (t_s). Thus different types of aspect operators may be regarded as different ways of focusing the situation denoted by the verbal predicate and the reference time parameter may be understood as a type of viewpoint through which the situation becomes visible, as it were (cf. Smith 1997: 1, Grønn 2004: 45–51). Given that the four parameters distinguished in the course of the previous discussion represent an obligatory part of the information conveyed by a sentence, it follows that verb phrases need both an aspect operator and a tense operator in order to be meaningfully interpreted.

A variety of relations may exist between the temporal parameters, which, as previously noted, are taken to have intervals as their basic value. We have already encountered relations like precedence ($A < B$ reads 'A precedes B'), inclusion ($A \subseteq B$ reads 'A is included in B') and proper inclusion ($A \subset B$ reads 'A is properly included in B'). Some other relations which will prove to be important in the following discussion include partial precedence ($A \leq B$ reads 'A partially precedes B'), immediate precedence ($A \succ B$ reads 'A immediately precedes B') and overlap ($A \otimes B$ reads 'A overlaps with B'). Within this framework, present, past and future tense may be analyzed as 'evaluation time overlaps with reference time' ($t_0 \otimes t'$), 'reference time prior to evaluation time' ($t' < t_0$) and 'evaluation time prior to reference time' ($t_0 < t'$), respectively. The familiar aspect categories, progressive, general imperfective and perfective, are taken to represent the relations 'reference time properly included in event time' ($t' \subset t_e$), 'reference time included in event time' ($t' \subseteq t_e$) and 'event time included in reference time' ($t_e \subseteq t'$), respectively. Note that the present work recognizes two additional aspectual categories, namely the so-called neutral aspect, which are taken to denote a general overlap relation between reference time and event time ($t' \otimes t_0$) and the anterior or perfect aspect which are taken to denote a partial precedence relation between reference time and event time such that event time (partially) precedes or is co-extensive with reference time ($t_e \leq t'$). These tense and aspect categories are summarized in Table 1.3 below.

Table 1.3: The semantic specification of the major tense and aspect categories

	Tense Categories			Aspect Categories			
Name	Present	Past	Future	Neutral	Imperfective	Perfective	Anterior
Semantic specification	$t_0 \subseteq t'$	$t' < t_0$	$t_0 < t'$	$t' \otimes t_E$	$t' \subseteq t_E$	$t_E \subseteq t'$	$t_E \leq t'$

In order to keep the formal notation as simple as possible, the semantic present and past will sometimes be represented as $||\text{PRES}||$ and $||\text{PAST}||$. These are to be understood as shorthand for ‘evaluation time included in reference time’ ($t_0 \subseteq t'$) and ‘reference time prior to evaluation time’ ($t' < t_0$), respectively. The semantic future shall mostly be left out of the following discussion, but will occasionally be represented as $||\text{FUT}||$. Each of the tense categories is in principle compatible with each of the aspect categories, but there is a strong tendency across languages to avoid the combination of overt present tense markers and perfective aspect markers.

If the above definitions capture the notions of past, present and future time reference correctly, the constraints they impose on the use of tense categories are extremely general. Recall, however, from the discussion of example (15a), that a sentence in the Simple Past like *Brutus killed Caesar* apparently only presupposes an unspecified past reference time and hence in principle may denote the maximal time interval prior to speech time. From the overall perspective of this work it is significant that some languages have morphological past tenses which denote a more specific reference time. For instance, the Bantu language Haya has past tense forms exclusively referring to the same day (hodiernal past), the previous day (hesternal past) or the day before the previous day (prehesternal past), as illustrated by the following examples (cf. Comrie 1985: 90).

- (23) a. twákôma mbwéènu/*nyéigolo/*ijo
 we.tie.up-HODPST today/yesterday/day before yesterday
 ‘We tied up today/*yesterday/*the day before yesterday’
- b. tukomíle nyéigolo/*mbwéènu/*ijo
 we.tie.up-HESPST yesterday/today/day before yesterday
 ‘We tied up yesterday/*today/* day before yesterday’

- c. *túkakôma* *ijo/*nyéigolo/*mbwèènu*
 we.tie.up-PST *day before yesterday/yesterday/today*
 ‘We tied up the day before yesterday/*yesterday/*today’

The semantics of these and similar tense categories can easily be accounted for within the present framework by assuming that categories of this type are associated with covert frame adverbs which restrict the scope of their reference time (cf. Comrie 1981, 1985: 129 for similar suggestions). Using this approach, a hodiernal past form like *twákôma* ‘we have tied up [today]’ denotes the temporal relation ‘reference time prior to speech time, same day’ (||PAST|| [TODAY]), whereas a hesternal past form like *tukomile* ‘we tied up [yesterday]’ denotes the temporal relation ‘reference time prior to speech time, previous day’ (||PAST|| [YESTERDAY]) and so on. It was briefly noted in the introductory chapter that the distinction between hodiernal and prehodiernal past represents the most common grammaticalized temporal remoteness distinction in natural language. This conceptual enlargement of our theoretical framework thus seems well motivated.

Hodiernal and hesternal past categories are semantically more specific than general past categories in that they pick out a subset of the time intervals denoted by the general past, providing clearly identifiable right and left boundaries for the reference time interval. However, we also need to consider another remoteness distinction which is often grammaticalized, namely the difference between recent past and remote past (cf. Ö. Dahl 1984: 109–112, 1985: 120–128, Comrie 1985: 90–91, Chung and Timberlake 1985: 207–209). It is tempting to suggest that this semantic difference may also be accounted for in terms of covert adverbial modifiers introducing relatively unspecific reference times, e.g. ‘reference time recently prior to evaluation time’ (||PAST|| [RECENTLY]) and ‘reference time remotely prior to speech time’ (||PAST|| [REMOTELY]). Unlike the cases cited in (23), however, general recent past categories appear to be compatible with discourse contexts explicitly selecting a reference time remotely prior to evaluation time/speech time. Consider for instance the following example from the Southern Bantu language Sotho (after Ö. Dahl 1984: 110):

- (24) Morena Moshoeshoe ofalletse Thaba Bosiu ka-1824
 Chief Moshoeshoe move-RECPST Thaba-Bosiu in 1824
 ‘Chief Moshoeshoe moved to Thaba-Bosiu in 1824’

Ö. Dahl notes that the vague type of remoteness distinction under discussion allows the speaker to represent a situation as “close even if it is objectively remote and vice versa” (Ö. Dahl 1984: 110, 1985: 122–123). This is a clear indication that the relevant distinction does not concern objective time measures, but rather relative temporal proximity from a subjective perspective. This is exactly the type of temporal relation Delbrück (1876: 88) talks of in his discussion of the Early Vedic Aorist Indicative and it is therefore particularly relevant in our present discussion.

From the discussion in Ö. Dahl (1984: 110, 1985: 123–125) and Nurse (2008: 93–94) it appears that this is not the only case in which a recent past category can be used in remote past contexts in Bantu languages. Assuming that recent past forms like *ofalletse* ‘moved’ contain a covert frame adverb [RECENTLY] this semantic feature would seem to constitute an obligatory part of the information they convey. Examples like (24) suggest, however, that this particular remoteness notion can be defeated by contextual factors. In contrast, the hodiernal and hesternal past tense categories in (23) appear to be incompatible with contexts specifying other reference times.

Another way of understanding the semantics of recent past categories would be to assume that they pick out reference times which are conceived of as immediately preceding the evaluation time ($t' > t_0$). This suggestion has the immediate advantage that it represents recent past semantics as a relatively specific temporal relation which picks out a principled subset of the intervals which are in the denotation of the general past ($t' < t_0$), namely those intervals which have a ‘right boundary’ bordering on evaluation time/speech time. We could assume that remote past categories simply lack this specific feature. Whereas the distinction between hodiernal and hesternal past is defined in objective-extensional terms, the distinction between subjectively proximate and subjectively remote past does not concern objective time measures. The examples cited above indicate that these sets of notions are not mutually exclusive, but represent two slightly different aspects of the conceptualization of temporal distance in natural language.

Before concluding this section, we need to briefly discuss some basic notions concerning modal interpretation as they will be crucial for the semantic analysis of the Early Vedic modal categories. One may distinguish two basically different types of modality, namely *epistemic modality* and *priority modality*. Following a suggestion by Portner (2005, 2007), these two types of modality may be linked to two

basically different clause types, assertive and directive clauses, which have fundamentally different functions in discourse. Assertive clauses add propositions to the Common Ground, i.e. the knowledge or set of assumptions shared by the speaker and the hearer. Directive clauses, on the other hand, are taken to add properties to the To-Do List of a salient discourse referent, i.e. the properties which ideally should be realized by the referent, given that he or she acts rationally. Among other things, this assumption would seem to imply that directive clauses are generally incompatible with past time reference. A third clause type, the interrogative, adds questions to what Portner (2005) calls the Question Set, that is, the questions the participants in the speech situation mutually agree to attempt to answer.

Intuitively, modality could simply be understood in terms of a type of relation between a possible world (w') and the Common Ground or world of evaluation (w_0) in somewhat the same sense as tense was defined as a type of relation between the reference time (t') and the evaluation time (t_0). However, this account of modality appears to be too simplistic in various respects. Following Kratzer (1977, 1981) and Portner (2007, 2009), one might distinguish at least three parameters which are relevant for the modal interpretation of a given sentence. The first and most basic of these parameters is the so-called Modal Base, which is constituted by the Common Ground and other types of contextual information and determines the set of accessible worlds. The second is constituted by the so-called Ordering Source, which imposes a relative ordering on the worlds made accessible by the Modal Base. In the case of epistemic modals, the Ordering Source mainly comprises contextual information. In the case of priority modals, the Ordering Source comprises contextual information as well as a To-Do List, the contextual information determining the set of rules or principles underlying the To-Do List in a given utterance situation. Portner (2007: 353–354) suggests that Imperatives represent a grammatical means to affect the ordering source for deontic modals, whereas Evidentials have a similar function in the case of epistemic modals.³³

³³ This assumption provides a neat division of labor between evidentials and epistemic modals. Some readers might find this distinction somewhat controversial, as several standard works on modality assume that these two categories may be classified as subtypes of one and the same overarching modal category (cf. e.g. Palmer 2001: 8–9). However, as evidentials and epistemic modals have different morphosyntactic

The third parameter is constituted by a modal relation which quantifies over (some subset of) the accessible worlds. Simplifying matters slightly, *necessity* may be defined in terms of universal quantification over the accessible worlds, *possibility* in terms of existential quantification over the accessible worlds and *probability* in terms of universal quantification over the highest ranked accessible worlds. In the case of epistemic modals, the highest ranked accessible worlds comprise the worlds which most closely correspond to the world of evaluation. Priority modals, on the other hand, comprise the worlds which most closely resemble some contextually determined ideal world.

According to this approach, a basic function of assertive as well as directive clauses consists of specifying the coordinates of situations in temporal and modal space. Clauses of both these kinds may therefore be hypothesized to have a tense, aspect and modality argument which must be saturated in order to be meaningfully interpreted. We thus arrive at the following basic semantic compositional frame:

- (25) [Clause Type_[MP] Mood_[TP] Tense_[AspP] Aspect_[VP] Aktionsart]]]]

The framework developed so far presupposes that the notional categories of tense, aspect and modality belong to the universal inventory of language. The fact that many languages do not have explicit tense and/or aspect markers seems to contradict this assumption, however. One way to accommodate this observation would be to suppose that sentences without a grammatical marker of a specific tense/aspect/mood relation receive a default interpretation which may be modified by contextual factors (cf. also Kiparsky 1998: 38). An ‘aspectless’ sentence might be hypothesized to denote the neutral aspect, so that ‘aspectless’ languages would be languages where all verbal categories denote the neutral aspect. From this perspective it is significant that native speakers of the variant of German spoken in Graz in Austria are sensitive to aspectual distinctions even though aspect is not grammatically encoded in the language (cf. Bertinetto 2008). This fact supports the assumption that aspect belongs to the universal inventory of semantic categories.

expression in many languages and, moreover, many languages allow evidential and epistemic modality markers to co-occur, it is reasonable to assume that these two categories belong to different areas of grammar (cf. e.g. Aikhenvald 2003, 2004, De Haan 2001 for further discussion and references).

Although the compositional frame in (25) suffices to capture the most important elements of meaning presupposed by a sentence, several scholars have noted that the exact interpretation of a given sentence depends on contextual factors, to some extent at least. Moreover, given that the meaning of a tense/aspect/mood operator is reflected in its range of discourse functions, the semantics of a given language-specific tense/aspect/mood category can only be properly understood by considering its role within the tense/aspect/mood system of the language. In order to understand these dimensions of temporal, aspectual and modal meaning, we need to outline a minimal model of context-dependency, markedness and blocking. This is the topic of the next section.

1.1.3 *Context-dependency, markedness and blocking*

In the previous discussion it has been tacitly assumed that the semantic specification of a given tense/aspect/mood category systematically restricts its compatibility with various types of adverbs and discourse contexts. Among other things, this assumption motivated the postulation of the reference time parameter in the discussion of example (16), repeated here for convenience:

- (16) a. Peter arrived (yesterday)
 b. Peter has arrived *(yesterday)

According to the present approach, the acceptability difference between (16a) and (16b) may be understood as a consequence of the different temporal specifications of the English Simple Past and Present Perfect. The Simple Past has a general past time reference, typically expressing that the reference time is located prior to evaluation time. It is thus perfectly compatible with a frame adverb like *yesterday* which denotes a specific past reference time. The Present Perfect, on the other hand, has a general present time reference, expressing that the reference time overlaps with evaluation time and therefore is incompatible with a past frame adverb like *yesterday*. A similar point was made in the discussion of different types of remoteness distinctions. Hornstein (1990: 15) formulates a general constraint which formalizes this intuition, according to which derived tense structures must preserve the basic tense structures from which they are derived, an assumption which is in accordance with the compositional approach to linguistic semantics adhered to in this work (cf. also Dowty 1982). It is tempting to suggest that similar

constraints apply above sentence level, so that the aspectual and modal properties of a given sentence systematically restrict its compatibility with different types of discourse contexts. A discourse context may be conceived of as a set of mutually consistent sentences to which new sentences are added by the simple sum operation. The merger of a given discourse context and a given sentence may be assumed to involve an update process which, among other things, ensures that the new context resulting from the merger remains consistent (cf. Hobbs 1985, Fabricius-Hansen and Sæbø 2004). These assumptions suggest that the basic semantic specification of a given sentence, i.e. a given combination of verb phrase, aspect operator, tense operator, mood operator and clause type may be taken to systematically restrict the range of discourse contexts in which the sentence may be expected to occur. It may further be taken to systematically constrain the possible development of the following discourse. These two properties are intimately related and represent two slightly different aspects of what may be called the *context-change potential* of a sentence. This point may be illustrated by the following discourse fragments:

- (26) a. I just did my first road race last weekend (...) I was winning the race (...) a whole bunch of people sprinted around me at the last minute and passed me before the finish line!³⁴
- b. *I just did my first road race last weekend (...) I won the race (...) a whole bunch of people sprinted around me at the last minute and passed me before the finish line!

The first discourse fragment contains a consistent set of propositions, describing a sequence of events which is realistic in the sense that anyone who understands English will agree that it represents a possible state of affairs. The second discourse fragment, on the other hand, contains an inconsistent set of propositions, describing a sequence of events which does not represent a possible state of affairs.

³⁴ http://collegiatecycling.org/content/ask_a_pro/ask_a_pro_pulling_the_field.html
The full fragment reads as follows:

'I just did my first road race last weekend, and I have a question about race tactics. I was winning the race practically the whole time, nobody was passing me, and I was doing awesome right until the very end—a whole bunch of people sprinted around me at the last minute and passed me before the finish line!'

The crucial difference between these two discourse fragments lies in the choice of aspect marker in the second sentence. The Past Progressive form *was winning the race* focuses an internal interval of the situation denoted by the predicate, something which, within the present framework, amounts to saying that it expresses that the reference time is properly included in the event time. Note also that the predicate is telic in the sense defined above, thus implying that the situation has a natural temporal endpoint. When combined with telic predicates, the English Progressive does not entail that the situation reaches its endpoint and is therefore compatible with the implicature that it was interrupted by some other, unexpected event. The Simple Past form *won*, in contrast, may be taken to focus the whole situation including its endpoint, so that, within the framework adhered to in this work, it may be taken to express that the event time is included in the reference time, i.e. the perfective aspect. As the Simple Past implies that the situation reached its endpoint in such cases, it is generally incompatible with the implicature that it was interrupted by some other event. The examples cited above illustrate how the different semantic specifications of these two aspect categories give rise to different sets of implicatures, which in turn constrain the possible further development of the discourse context.

It should be noted, however, that English Simple Past forms of telic predicates do not strictly entail that the situation reaches its endpoint. Consider for instance the following examples:

- (27) a. Hydara (...) was shot in the head on the night of December 16 by unidentified assailants while he drove home from his office in the capital, Banjul.³⁵
- b. Keeton Mathis (5) was hit by his half-sister's school bus as he crossed the road in front of his family's house.³⁶

In these cases, the Simple Past forms *drove* and *crossed* denote situations which did not reach their endpoint, but were interrupted by

³⁵ <http://www.unhcr.org/refworld/country,,CPJ,,GMB,456d621e2,47c566d8c,0.html>
The full fragment reads as follows:

'Hydara, managing editor and co-owner of the independent newspaper The Point and a leading opponent of the restrictive new legislation, was shot in the head on the night of December 16 by unidentified assailants while he drove home from his office in the capital, Banjul.'

³⁶ <http://www.geocities.com/2safeschools/ilm/ilmem8.htm>

some other, unexpected event. Data like these suggest that the English Simple Past under given circumstances is compatible with an imperfective-like interpretation and hence does not represent a past perfective category. However, if it is correct that the Simple Past is compatible with imperfective readings, the acceptability difference between (27a) and (27b) remains opaque, as this would seem to imply that the Simple Past and the Past Progressive are, to some extent at least, interchangeable in certain contexts, presupposing that the situation was not successfully completed.

Although a full discussion of all the relevant aspects of this problem is far beyond the scope of the present work, the explanatory power of the theoretical model outlined in this chapter would be significantly enhanced if it were able to account for these somewhat surprising distribution patterns. They may be accounted for in terms of markedness and morphosyntactic blocking. It was suggested above that the English Past Progressive expresses that reference time is (properly) included in event time. This suggestion may be taken to imply that it is positively characterized or semantically 'marked' with regard to the progressive/imperfective aspect.³⁷ The Simple Past, on the other hand, is compatible with perfective as well as imperfective readings, which may be taken as an indication that it denotes the neutral aspect. Recall that the neutral aspect is defined as a general overlap relation between reference time and event time. This rather unspecific semantic relation may, among other things, be interpreted either as 'reference time (properly) includes event time', i.e. perfective-like, or as 'event time (properly) includes reference time', i.e. imperfective-like. Under this analysis, the Past Progressive is semantically more specific than the Simple Past, so that the above distribution patterns can be explained in terms of morphosyntactic blocking of a general category by a more specific category. Formally speaking, the relationship between these two morphosyntactic categories may be understood as a privative opposition between the semantically marked Past Progressive which is positively characterized as progressive/imperfective and the semantically unmarked Simple Past which is underspecified in this respect and thus in principle compatible with a progressive/imperfective interpretation. In the spirit of Kratzer (1998), the relationship between these

³⁷ As the point here does not depend on an exact semantic characterization of the English Past Progressive, I wish to remain as neutral as possible with regard to whether it represents a properly progressive or a general imperfective category.

two categories may be formally represented in the following manner, factoring out the modality parameter for the sake of clarity:

- (28) a. Past progressive: $\|PAST\| \wedge [\lambda P.\lambda t'.\exists e(t' \subset_e(e) \wedge P(e) = T)]$
 b. Simple past: $\|PAST\| \wedge [\lambda P.\lambda t'.\exists e(t' \otimes_e(e) \wedge P(e) = T)]$

This definition is intended to capture the compositional nature of aspecto-temporal meaning. The first part demands that the reference time is located prior to speech time, as noted in Table 1.3. The second part demands that there is a proposition P and a reference time (t') such that there is a situation e , the event time of which includes the reference time and the proposition P applied to the situation description e is true (T). Note that e is intended as a variable which can either represent a State, Process or Telic Event predicate. The lambda operator (λ) may be taken to abstract over the variables (P, t') and to ensure that they pick out exactly the right set of referents. These definitions capture the basic idea that the English Past Progressive represents a semantically more specific category than the Simple Past and that the former picks out a principled subset of the propositions which are in the denotation of the latter. As a consequence, the apparent perfective meaning of the English Simple Past may be taken to reflect the fact that the semantically more specific Past Progressive tends to be preferred in contexts where these categories are in principle interchangeable. The tendency to use the Simple Past in contexts where a perfective meaning is intended thus partly mirrors its inherent semantic properties and partly system-dependent constraints.

This brief discussion suggests that the relative semantic markedness between categories within the same linguistic system is a factor which should be taken into consideration together with lexical, morphosyntactic and contextual factors when determining the temporal, aspectual and modal meaning of tense/aspect/mood operators in natural language. Cross-linguistic studies like Ö. Dahl (1985) and Smith (1997) have established that tense/aspect categories with similar semantic properties are associated with roughly the same sets of readings in genetically unrelated languages. It is therefore tempting to suggest that a given tense, aspect or mood operator is associated with a finite set of possible readings which may be analyzed as lexically and/or contextually determined realizations of a general basic meaning. The different readings associated with a given operator type may be understood as a structured set related by family resemblance, as in the figure below:

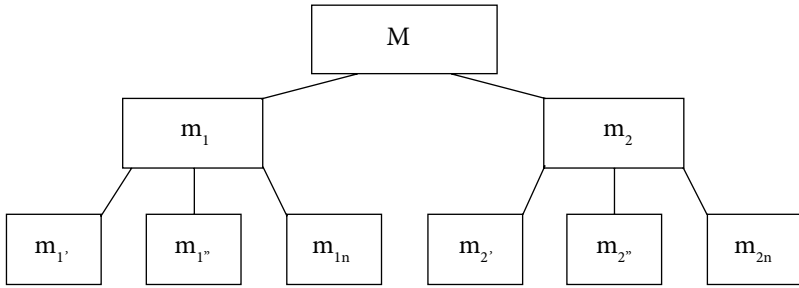


Figure 1.8: Lexically and contextually determined readings as networks of structured polysemy

This figure is intended to illustrate the idea that a given tense/aspect/mood marker has a basic meaning (M) which combines with different types of verbal lexemes yielding slightly different derived meanings (m_1 , m_2) which in turn are modified in different ways by contextual factors (m_1' , m_1'' , m_1^n , m_2' , m_2'' , etc.). Note that although two or more semantically distinct categories in some cases may have one or more readings in common, the present framework minimally presupposes that two typologically different categories differ with regard to the presence or absence of one reading. The readings that distinguish two or more categories may accordingly be classified as typologically relevant. From the overall perspective of the present work, the various readings associated with a given category in a given language provide important evidence as to its semantic properties and thus represent a crucial tool for the study of semantics in dead languages like Early Vedic.³⁸

1.2 *Aspect, situations and contexts*

In the following, we examine the most salient lexically and contextually determined readings associated with the four aspect categories distinguished in Section 1.1.2. The main goal of the following sections is to identify a cluster of properties which may be used as diagnostic tools when we examine the functional properties of the grammatical categories in Early Vedic later in this work.

³⁸ Dahl (2009c, forthcoming) takes this idea one step further and explores the possibilities of reconstructing the semantics of etymologically related inflectional categories on the basis of their common lexically and contextually determined readings.

1.2.1 *The imperfective aspect*

This section discusses a set of lexically and contextually determined readings which are typically associated with the imperfective aspect. In the present work, this aspectual category is taken to predicate a general inclusion relation between reference time and event time ($t' \subseteq t_e$). General imperfective categories typically have two slightly different readings in common. First, they can be used to focus an internal interval of the situation denoted by the verbal predicate, a reading which may be labeled *progressive-processual*. The French and Bulgarian examples in (29) illustrate the progressive-processual reading with telic and atelic predicates.

- (29) a. Quand l'oncle Jean a frappé sa porte à minuit,
 when the.uncle Jean AUX knock-PST.CMP at midnight
 Chantal *lisait*
 Chantal read-PST.IPF
 'When Uncle Jean knocked at her door at midnight, Chantal was reading' (after Smith 1997: 198)
- b. Вчера, когато тя излизаше от стаята,
 yesterday when she leave-PST.IPF out.of the.room
 срещна един познат
 meet-PST. AOR one friend
 'Yesterday, when she was leaving the room, she met a friend' (after Lindstedt 1985: 137)
- c. Un jour qu' il jouait aux échecs avec Charlemagne,
 one day which he play-IPF at chess with Charlemagne
 il eut l'audace de mettre celui-ci échec
 he have-PST.SPL impudence of put him in.check
 mat (Internet)³⁹
 and mate
 'One day, when he was playing chess with Charlemagne, he had the impudence of putting him in check and mate'
- d. Когато четях, тя влезе
 when read-1SG.PST.IPF she enter-PST.AOR
 'When I was reading, she entered' (after Lindstedt 1985: 117)

It was noted previously in this chapter that the progressive-processual reading may be interpreted as predicating a proper inclusion relation

³⁹ <http://monglane.a2co.org/chasseurs.htm>

between reference time and event time ($t' \subset t_E$). This aspecto-temporal relation may be schematically represented as follows:

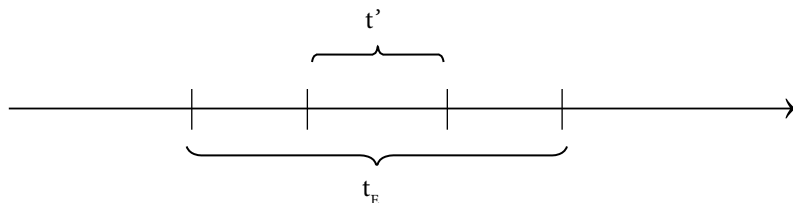


Figure 1.9: The progressive-processual reading of the imperfective aspect

Past Imperfective forms of telic predicates are often used to express that a situation was terminated without being completed, as in the following examples from Latin and Bulgarian:

- (30) a. *Ipsi (...) nostrosque intra munitiones ingredi prohibebant.*
 They ours.and within camps enter prevent-IPF
At milites (...) locum ceperunt eosque ex silvis
 But soldiers camp seized-PRF them.and out.of woods
expulerunt
 expel-PRF
 ‘They were preventing/tried to prevent our soldiers from entering the camp, but the soldiers seized the site and drove them out of the woods’ (Caesar: *De Bello Gallico* V 9.6)
- b. *Когато пресичаше на бегом улица “Алигиери”,*
 when cross-PST.IPF in running street “Alighieri”
една кола го
 one car him
блъсна и той се строполи на
 knock.down-PST.AOR and he RFL collapse-PST.AOR in
улицата (Internet)⁴⁰
 the.street
 ‘When he was crossing Alighieri street, a car knocked him down and he collapsed in the middle of the street’

This reading may be labeled ‘conative-preliminary’ and represents a contextually determined variant of the progressive-processual reading.

⁴⁰ http://liternet.bg/publish17/m_milanov/kraj/3.htm

In cases like these, the imperfective operator has the effect of suppressing the change of state entailed by the verb. This may be regarded as a paradigm example of aspectual coercion in the sense of De Swart (1998).

Second, general imperfective categories may be used to express that a situation occurs on a regular basis throughout a certain period of time. This reading may be labeled *habitual*. The examples in (31) illustrate the habitual reading of the imperfective aspect.

- (31) a. Sophistae *appellabantur* ii, qui aut
 sophists-NOM be.called-PST.IPF they who either
 ostentationis aut quaestus *philosophabantur*
 showing.off or aquisition.of.income philosophize-PST.IPF
 ‘Those who reasoned philosophically either for showing off or
 for profit used to be called sophists’
 (Cicero, *Academici Libri* II 73, cf. Menge et al. 2000: 185)
- b. Всеки ден Иван *четеше* цялото писмо
 every day Ivan read-PST.IPF the.whole letter
 ‘Every day Ivan read the whole letter’ (after Lindstedt 1985: 150)

At this point it should be emphasized that iterativity and habituality represent two distinct, albeit related, notions (cf. also Comrie 1976: 26–30). Both involve quantification over eventuality types, but whereas iterative operators typically imply that the number of situations is somehow limited, habitual operators quantify over an unlimited number of situations. From a typological perspective, it is significant that general imperfective categories are compatible with a habitual interpretation but tend to be less readily available for an iterative interpretation. The habitual reading represents a relatively unspecific aspectual meaning simply expressing that the situation occurred more than once and, somewhat surprisingly perhaps, seemingly implies that each instance of the situation is completed. It thus seems to fundamentally differ from the progressive-processual reading in several respects.

Within the framework developed here, these two readings may be accounted for as context-dependent realizations of the aspectual relation denoted by the imperfective aspect ($t' \subseteq t_e$). The progressive-processual reading expresses that the reference time covers a proper subinterval of the event time ($t' \subset t_e$), presupposing that the cardinality of the situation is one. The iterative-habitual reading expresses that event time is co-extensive with reference time ($t_e = t'$), presupposing

that the cardinality of the situation is more than one. The difference between these two readings may be formally represented as follows:

- (32) a. Progressive-Processual: $[\lambda P.\lambda t'.\exists e(t' \subset_e(e) \wedge |e| = 1 \wedge P(e) = T)]$
 b. Habitual: $[\lambda P.\lambda t'.\exists e(t' =_E(e) \mid |e| > 1 \wedge P(e) = T)]$

These formalizations differ in one important respect from those in (28) in that the cardinality of the situation is represented as $|e|$.

At this point it should be noted that one may distinguish various constructions with a basically imperfective meaning that show a more restricted use than the general imperfective aspect. Most notably, many languages have a so-called progressive category, i.e. an imperfective category that primarily has a progressive-processual meaning and typically cannot be used to convey the habitual reading (cf. also Landman 1992). As expected, categories of this type are also compatible with a conative-preliminary reading. Consider for instance the following examples from Italian:

- (33) a. L'uomo infastidito si gratta la testa,
 The.man bothered RFL scratch-PRS.SPL the head
 sta giocando a scacchi con un amico (Internet)⁴¹
 play-3SG.PRS.PRg at chess with a friend
 'The man, who is bothered, scratches his head. He is playing chess with a friend'
- b. *L'uomo infastidito si gratta la testa, sta giocando a scacchi
 con un amico ogni settimana
 'The man, who is bothered, scratches his head. He is playing chess with a friend every week'
- c. L'azzurro stava vincendo la gara, ma ha sentito
 the blue AUX win-PST.PRg the race but AUX PST.CMP
 un dolore alla
 a pain in.the
 coscia ed è arrivato ultimo,
 thigh and AUX come.in-PST.CMP last

⁴¹ http://www.municipio.re.it/cinema/catfilm.nsf/PES_PerTitolo/97B13E3EA8488E07C1256DAA0034369D?opendocument

zoppicando (Internet)⁴²

limping

'The blue was winning the race, but felt a pain in his thigh and came in last, limping'

For the sake of completeness, we may also briefly note that some languages also have a habitual category which is generally restricted to expressing the habitual relation, being generally incompatible with a progressive-processual reading. The English *used to VERB* construction represents a paradigm example of a habitual category.

1.2.2 *The perfective aspect*

In many respects, the perfective aspect is the mirror-image of the imperfective aspect. The perfective aspect has traditionally been defined as one that presents the situation as a 'complete event' (cf. e.g. Comrie 1976: 4). The above time-relational definition of the perfective aspect as 'event time included in reference time' ($t_e \subseteq t'$) incorporates this intuition, as it minimally presupposes that the event time has no part that is outside the reference time. This section discusses some of the most important lexically and contextually determined readings of past perfective categories.

Past perfective forms of atelic verbal predicates typically express that a situation has been terminated prior to speech time, a reading which may be labeled 'terminative-egressive' and which may be illustrated by the following examples from Italian and French (cf. Bertinetto 1986: 190–215 for more Italian data, Smith 1997: 194–197, 235–241 for more data from French and Russian; 264–266, 301–302 for data from Mandarin Chinese and Navajo and Rijksbaron 2002: 11–33 for data from Classical Greek):

- (34) a. A 16 anni ho odiato chi oggi posso solo
 at 16 years hate-PST.CMP who today can-PRS.SPL only
 ringraziare (Internet)⁴³
 thank
 'At 16 I hated those whom I can only thank today'
- b. Yoyo est artiste peintre d'origine allemand, il a
 Yoyo is-PRS artist painter of origin German he live-PST.

⁴² <http://www.tgcom.mediaset.it/sport/articoli/articolo418925.shtml>

⁴³ <http://bistebest.blog.excite.it/permalink/128529>

vecu a Paris
 CMP in Paris
 dans les 60's puis s' est exile a New York (Internet)⁴⁴
 in the 60's and then RFL go.in.exile-PST.CMP to New York
 'Yoyo is a painter, artist of German origin, he lived in Paris in
 the 60's and then he went in exile to New York'

Various scholars have noted that an important function of the perfective aspect is to derive 'telic' predicates from atelic predicates (cf. e.g. De Swart 1998: 347–349). This claim apparently blurs the distinction between aspectual properties at the verb phrase level and aspect on sentence level and thus confuses two notions which should be kept apart (cf. Depraetere 1995, Bertinetto 2000: 21ff.). Nevertheless, it is difficult to avoid the conclusion that the perfective aspect at least in some cases induces a telic interpretation. Consider for instance the following examples from Czech (after Krifka 1992: 49, cf. also Borer 2005: 155ff. with references):

- (35) a. Ota pil vino
 Ota drank-PST.IPF wine
 'Ota drank wine'
- b. Ota vypil vino
 Ota drink.up-PST.PFV wine
 'Ota drank up (the) wine'

Czech, like all other Slavonic languages except Bulgarian and Macedonian and, more importantly for our present purposes, like Early Vedic, does not have obligatory definiteness markers. A bare mass noun like *vino* 'wine' is therefore vague between an indefinite and a definite reading. Noun phrases consisting of an indefinite mass noun or plural noun typically give rise to an atelic interpretation in object position, whereas a definite noun phrase gives rise to a telic interpretation. In the example cited above, it appears that the perfective verb *vypil* 'drink up' presupposes that there is a specific quantity of drinkable stuff and that it thus induces a telic interpretation.

⁴⁴ <http://usa.louisbeziau.fr/>

Perfective forms of atelic predicates are sometimes used to focus the entry into a state or process, as illustrated by the following examples from Italian (cf. also Bertinetto: 1986: 405ff. for more Italian data and Smith 1997: 194–197 for data from French):

- (36) a. Ho dormito alle 3 stanotte, incredibile
 Sleep-PST.CMP at.the 3 this.night incredible
 non prendevo mai sonno (Internet)⁴⁵
 not catch-IPF ever sleep
 ‘I fell asleep at 3 this night, incredible, I could never catch sleep’
- b. Bianca ha camminato a due anni perchè aveva i
 Bianca walk-PST.CMP at two years because have-IPF
 piedi inclinati verso l’ esterno (Internet)⁴⁶
 feet inclined towards the outward
 ‘Bianca started walking at two because her feet inclined outward’

This reading is associated with past perfective forms of atelic predicates in various languages (cf. e.g. Smith 1997: 195, 265 for data from French and Mandarin, Rijksbaron 2002: 20–21 for data from Classical Greek). Henceforth this reading will be referred to as ‘inchoative-ingressive’.

Within the time-relational framework developed here the inchoative-ingressive and terminative-egressive readings may be derived directly from the basic aspectual relation denoted by the perfective aspect. Recall that the perfective aspect is taken to denote the aspectual relation ‘event time included in reference time’ ($t_E \subseteq t$). This has at least the two possible readings ‘reference time co-extensive with event time’ ($t' = t_E$) and ‘event time properly included in reference time’ ($t_E \subset t$). In the latter case, the event time may under certain circumstances reduce to a very small interval which is typically interpreted as the entry into the situation denoted by the verbal predicate, for instance, when a form of this type is modified by a punctual adverb. The terminative-egressive reading may be taken to express that reference time is co-extensive with event time, something which may be made explicit by durative adverbs. The two different readings of the perfective aspect may be schematically represented as follows:

⁴⁵ <http://lavitadially.go.ilcannocchiale.it/print/1121556.html>

⁴⁶ <http://www.cercasalute.it/csforum/read.php?3,16,16>

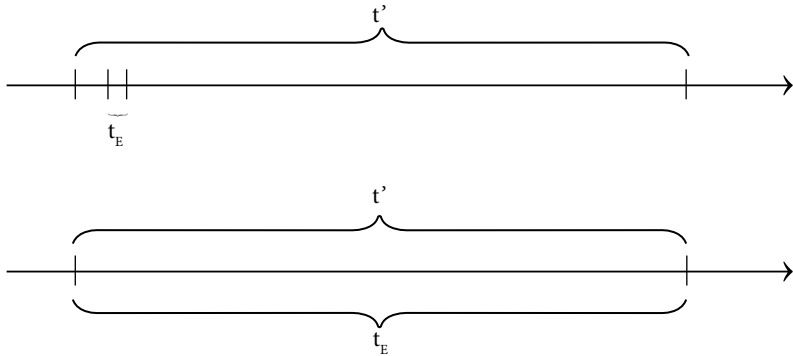


Figure 1.10: The inchoative-ingressive and terminative-egressive readings of the perfective aspect

When combined with telic predicates, the perfective aspect invariably expresses that the event was completed within the reference time interval, a reading that shall henceforth be referred to as *completive*. Within the present framework, the completive reading may be analyzed as a proper inclusion relation between reference time and event time such that event time is properly included in reference time ($t_E \subset t'$). The following examples illustrate how the completive reading gives rise to a sequential reading when two or more past perfective forms of telic verbal predicates appear in one and the same discourse context (cf. also Bertinetto 1985: 405ff., 2003: *passim* for data from Italian, Smith 1997:236–237 for data from Russian, 2003: *passim*):

- (37) a. Il bambino, (...), e' stato avvicinato dai due
 The child be.approached-PST.PRF of.the two
 ragazzi.
 adolescents
 Uno l' ha immobilizzato e l'altro, (...) gli
 One the block-PST.PRF and the.other to.him
 ha segnato una
 scratch-PST.PRF a
 croce su entrambe le guance. Il bimbo e' andato
 cross on both the cheeks the child go-PST.PRF
 a casa e
 to home and
 ha raccontato tutto ai suoi genitori che l'
 tell-PST.PRF everything to.the his parents who him
 hanno subito
 AUX immediately

portato al pronto soccorso del
bring-PST.PRF to.the emergency room of.the
San Matteo (Internet)⁴⁷
San Matteo

‘The child was approached by the two adolescents. One blocked him and the other scratched a cross on each of his cheeks. The child went home and told everything to his parents who immediately brought him to the emergency room of San Mateo [Hospital]’

- b. ἔγρετο δ’ ἐξ ὕπνου, θεΐη δέ μιν
wake-AOR and from sleep divine and himself
ἀμφέχυντ’ ὁμῳή:
be.shed.around-AOR voice
ἕζετο δ’ ὀρθοθεΐς, μαλακὸν δ’ ἔνδυνε χιτῶνα
sit.down-IPF and upright soft and put.on-IPF tunic
καλὸν νηγάτεον, περὶ δὲ μέγα βάλλετο φᾶρος:
fair glistening around and great throw-IPF cloak
ποσσὶ δ’ ὑπὸ λιπαροῖσιν ἐδήσατο καλὰ πέδιλα,
feet and beneath shining bind-AOR beautiful sandals
ἀμφὶ δ’ ἄρ’ ὥμοισιν βάλετο ξίφος ἀργυρόηλον:
around and PTC shoulders throw-IPF sword silver.studded
εἴλετο δὲ σκῆπτρον πατρώϊον ἄφθιτον αἰεὶ
take-AOR and sceptre father imperishable ever
σὺν τῷ ἔβη κατὰ νῆας Ἀχαιῶν
with these go-AOR along ships Achaeans
χαλκοχιτῶνων:
brazen.coated

‘He awoke from his sleep, the divine voice rung in his ear, he sat upright and took on his soft tunic, fair and glistening; he cast his great cloak around him, and beneath his shining feet he bound his fair sandals; around his shoulders he flung his silver-studded sword and he grasped the scepter of his fathers, imperishable ever. With them he took his way along the ships of the brazen-coated Achaeans’ (Homer Ilias B 41–47)

⁴⁷ <http://www.genitori.it/documento.asp?sotto=10&articolo=2209>

The full fragment reads as follows:

Il bambino, che stava procedendo in sella alla sua bicicletta, e' stato avvicinato dai due ragazzi. Uno l'ha immobilizzato e l'altro, con una pietra appuntita gli ha segnato una croce su entrambe le guance. Il bimbo e' andato a casa e ha raccontato tutto ai suoi genitori che l'hanno subito portato al pronto soccorso del San Matteo.

The sequential reading of the perfective aspect represents one of its most salient readings cross-linguistically and is often taken to represent the perfective reading *par excellence*. It is significant, however, that the excerpt from the *Ilias* which represents a paradigm example of a narrative text, contains a sequence of Imperfect forms that clearly appear to have a sequential reading. These considerations suggest that perfective categories do not represent the only type of aspectual operators which can be used with this meaning in narrative contexts.

The completive reading associated with past perfective forms of telic verbal predicates gives rise to a couple of other interesting context-dependent readings. Most notably, forms of this type are often used to emphasize that the state resulting from the completion of the event still holds at speech time, that is, they may be used to invoke what may be called a 'resultative' implicature. Consider for instance the following examples (cf. Bertinetto 1986: 423 for additional data from Italian, and Smith 1997: 236 for additional data from Russian):

- (38) a. Il est arrivé, le nouveau Panther Mini! (Internet)⁴⁸
 It come-PST.CMP the new Panther Mini
 'It has come, the new Panther Mini!'
- b. Я потерял паспорт СССР, что мне делать (Internet)⁴⁹
 I lose-PST.PRF passport USSR what me do
 'I have lost a USSR passport, what shall I do'

In cases like these, the resultant state is focused, whereas the antecedent process plays a less important role, the part of the reference time interval which is located after the event time being interpreted as a state resulting from the completion of the event denoted by the verb.

So far, we have mainly been discussing examples where the perfective aspect denotes a single, specific situation. However, perfective categories are perfectly compatible with an iterative reading in various languages, something which indicates that they do not presuppose that the cardinality of the situation denoted by the verb is one, contrary to what is sometimes assumed (cf. e.g. Fortson 2004: 83). Consider for instance the following examples:

⁴⁸ [http://logitrans.fr/info/news/il-est-arriv%C3%A9-le-nouveau-panther-mini-\(anglais\).aspx](http://logitrans.fr/info/news/il-est-arriv%C3%A9-le-nouveau-panther-mini-(anglais).aspx)

⁴⁹ http://www.9111.ru/questions/q50015_answer34690.html

- (39) a. πολλάκις ἐθαύμασα τίσι ποτὲ λόγοις
 many.times wonder-AOR what PTC arguments
 Ἀθηναίους ἔπεισαν
 Athenians persuade-AOR
 οἱ γραψάμενοι Σωκράτην ὡς ἄξιος εἶη
 who having.accused Socrates that worthy be-SBJ
 θανάτου τῇ πόλει.
 death the city
 ‘Many times I have wondered by what arguments those
 who have accused Socrates persuaded the Athenians that
 he was worthy of death for the sake of the city’ (Xenophon
 Memorabilia I 1.1)
- b. Gianni *é andato* al mare con Maria due volte
 Gianni go-PST.CMP to.the sea with Maria two times
 ‘Gianni has gone to the beach with Maria twice’ (after Lenci
 and Bertinetto 2000: 247)
- c. αὐτὸς γὰρ ἕκαστος βουλόμενος κορυφαῖος εἶναι γνώμησί
 self for everyone wishing leader be opinions
 τε νικᾶν
 and win
 ἐς ἔχθρα μεγάλα ἀλλήλοισι ἀπικνέονται, ἐξ ὧν
 into quarrels great each.other get.into-PRS out.of which
 στάσεις
 party.strives
 ἐγγίνονται, ἐκ δὲ τῶν στασίων φόνος: ἐκ δὲ τοῦ
 arise-PRS out.of and the party.strives bloodshed out.of and the
 φόνου ἀπέβη ἐς μοναρχίην
 bloodshed end-AOR in monarchy
 ‘For as everyone wants himself to be leader and his own opin-
 ions to prevail, people get into quarrels with each other, from
 which party strives arise and from the partystrives bloodshed
 (arises) and from the bloodshed it (usually) ends in monarchy
 (Herodotos Historiae III 82.3, after Rijksbaron 2002: 32)
- d. In passato, la musica ci ha resi (spesso) felici
 In past the music us make-PST.CMP (often) happy
 ‘In the past, music (often) made us happy’ (after Lenci and
 Bertinetto 2000: 252)

Whereas the iterative reading is far from uncommon with perfective cat-
 egories, they seem to be less readily available for a habitual interpretation.

Although examples like (40d) show that perfective categories in some languages are marginally compatible with a habitual reading, they seem to be subject to various constraints in this respect (cf. Lenci and Bertinetto 2000: 252). It is telling that, in languages having distinct iterative and habitual categories, the iterative reading tends to be associated with perfective morphology, whereas the habitual reading is typically conveyed by other aspectual categories, as in the following examples from Sindhi (cf. Cole 2001: 14, cf. also Comrie 1976: 26–32):

- (40) a. halando: huyo:
 go-IPV AUX-PST
 ‘He used to go’
 b. halyo: the:
 go-PFV AUX-ITER
 ‘He went several times’

Recall from our previous discussion that perfective forms of atelic verb phrases with an object argument consisting of an indefinite mass noun in some cases seem to presuppose that there is a finite quantity of stuff. A similar presupposition could be invoked to account for the data just discussed, as the perfective aspect seems to be fully compatible with a multiple event reading when the cardinality of the situation denoted by the verbal predicate is finite, as is the case with the iterative reading, but not with the habitual reading. If this suggestion is correct, one might hypothesize that perfective categories generally tend to select predicates which are specifically quantified in the sense that they denote a specific number of participants as well as situations. This, in turn, could be plausibly derived from the basic semantic definition of the perfective aspect, which presupposes that the event time cannot last longer than the reference time, hence implying that there is some more or less definite temporal boundary for the situation.

A curious fact which should be mentioned before concluding this section is that perfective forms are used in performative sentences in various languages, as illustrated by the following examples from Classical Ethiopic and Classical Greek (cf. Weninger 2000 for additional data from Classical Ethiopic, Rogland 2001 for additional data from Classical Syriac and Bary 2007, 2009: 130–132 for additional data from Classical Greek):

- (41) a. wa-nāhu *fannokuka*
 and-behold send.you-PFV
 ‘Behold, I hereby send you!’ (Judgments 6:14, after Weniger 2000: 93)
- b. *ἐπῆνεσ’*, ἀλλὰ στεῖχε δωμαίων ἔσω
 thank-AOR but come.on-PRS.IMP house into
 ‘Thanks, but come on into the house’ (Euripides: Iphigeneia in Aulis 440, after Rijksbaron 2002: 30)

Performative sentences represent a pragmatically marked type of context where the speaker utters the sentence and at the same time fulfils an act of the type specified by the verb. In these cases, the situation is represented as ‘completed’ at the time of speech, i.e. the event time is represented as being co-extensive with speech time. It is not surprising in itself that the perfective aspect is often used to express this aspectual relation, but it is remarkable that a past perfective category is used to refer to a situation which is located in speech time, as in example (42b). This may reflect the fact that performative sentences in general have a marked status and the choice of a past perfective form may be a way of signaling that the sentence is not just an ordinary statement. The time-relation presupposed by performative sentences may be schematically represented as follows:

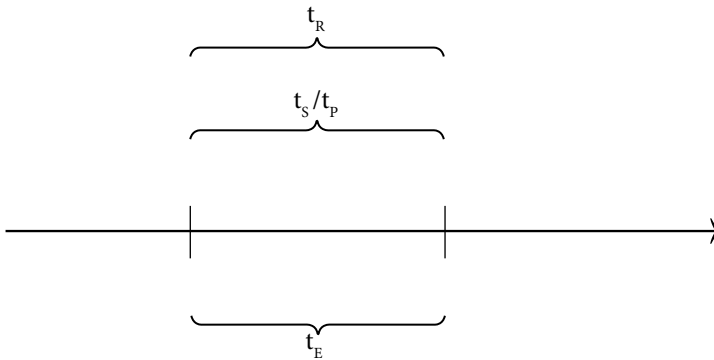


Figure 1.11: The aspecto-temporal relation presupposed by performative utterances

At this point it should be stressed that the current analysis of performative sentences does not claim that sentences of this type demand a perfective category, only that they demand a category which is compatible with the aspectual relation ‘reference time co-extensive with event time’ ($t' = t_e$). This constraint is hardly too permissive, as present imperfective and neutral categories are often found in this type of sentence, but it rightly excludes other aspectual categories, e.g. the progressive and the anterior, from properly performative sentences.

Tentative formalizations of the most important readings associated with the perfective aspect are given in (42).

- (42) a. completive: $[\lambda P.\lambda t'.\exists e(t_e(e) \sqsubset t' \wedge |e| = 1 \wedge P(e) = T)]$
 b. terminative-egressive: $[\lambda P.\lambda t'.\exists e(t' = t_e(e) \wedge |e| = 1 \wedge P(e) = T)]$
 c. iterative: $[\lambda P.\lambda t'.\exists e(t_e(e) = t' \wedge [|e| > 1 \setminus^{-\infty} \wedge P(e) = T)]$

In order to distinguish the iterative reading from the habitual reading defined in (32b) it is convenient to introduce the negation \neg and the infinity symbol ∞ . According to the analysis presented here, the inchoative-ingressive reading may be regarded as a lexically restricted variant of the completive reading, whereas the performative reading may be regarded as a contextually determined variant of the terminative-egressive reading.

1.2.3 *The anterior aspect*

This section is dedicated to the so-called anterior or perfect aspect. In table 1.3, I suggested that the anterior aspect denotes a partial precedence relation between event time and reference time, such that event time (partially) precedes or is co-extensive with reference time ($t_e \leq t'$).

The English *Present Perfect*, the Classical Greek *Perfect* and the Norwegian *Perfektum* represent paradigm examples of anterior categories. As the English Present Perfect has been subject to a large number of studies, it represents a convenient point of departure for a discussion of the semantic properties of the anterior aspect (cf. e.g. McCawley 1981, Mittwoch 1988, 2008, Klein 1992, Michaelis 1994, Kiparsky 2002, Panchewa and von Stechow 2004). In the following, we discuss some of the most important readings of the anterior aspect and how they relate to the postulated basic meaning of the anterior aspect.

Broadly speaking, anterior categories are associated with at least four more or less distinct readings, which may be illustrated by the following examples:

- (43) a. Heckscher Museum Celebrates Artists Who have Lived in Long Island, NY (Internet)⁵⁰
- b. He has occasionally released solo work, as is the case with his most recent effort, 2006's Highway Companion, on which he performed most of the backing instrumentation himself (Internet)⁵¹
- c. Now the bomb has exploded yet we pretend the population explosion is not a problem (Internet)⁵²
- d. President Barack Obama has won the Nobel Peace Prize [written on October 9th 2009, just after the Nobel Committee announced their decision] (Internet)⁵³
- e. I have lived here for ten years now, having moved from Atlanta, Georgia (Internet)⁵⁴
- f. Today we have been married for 13 years, and are blessed to have 3 beautiful kids (Internet)⁵⁵

These examples show that the Present Perfect can denote a situation which has occurred at one or more times at some indefinite point in the past (43ab), a reading which is commonly labeled 'experiential' or 'existential'. It can also be used to express that a state resulting from the completion of a past event holds at evaluation time (43c), a reading which is commonly labeled 'resultative'. The Present Perfect is also used to express that a situation has happened immediately prior to evaluation time (43d), the so-called 'recent past' reading and that a situation has held from some definite or indefinite time in the past until evaluation time (43ef), a reading which is commonly labeled

⁵⁰ <http://www.artknowledge.com/2009-10-06-22-13-37-heckscher-museum-celebrates-artists-who-have-lived-in-long-island-ny.html>

⁵¹ <http://www.last.fm/music/Tom+Petty+and+the+Heartbreakers/+wiki/diff?&a=10&b=11>

⁵² <http://rewilding.org/populationgrowth.html>

⁵³ http://www.jasonpye.com/blog/2009/10/obama_wins_nobel_peace_prize.html

⁵⁴ <http://www.city-data.com/forum/florida/362106-thinking-about-relocating-tampa-seattle.html>

⁵⁵ <http://www.beintheword.org/whoarewe.html>

‘extended now’ or ‘universal’ (cf. also Kiparsky 2002). Note that the existential reading is vague in distinguishing between a single and a multiple event reading.

The existential, resultative and recent past readings may be plausibly analyzed as contextually determined variants of the basic aspectual relation denoted by the anterior aspect. Specifically, the existential reading may be understood as a general precedence relation between event time and reference time ($t_E < t'$), the resultative reading may be understood as an immediate precedence relation between event time and reference time ($t_E > < t'$) and the recent past relation may be analyzed as an immediate precedence relation between event time and reference time ($t_E > < t'$), also implying that the event time ends immediately prior to evaluation time ($t_E > < t_0$).

The so-called universal reading, on the other hand, typically arises when an anterior form of an atelic verbal predicate is modified by a durative temporal adverb.⁵⁶ It remains unclear, however, how the universal reading relates to the other salient readings of the anterior aspect and to this aspectual relation more generally. On the face of it, a sentence like the one cited in (43e) implies that the situation still holds at speech time/evaluation time, hence apparently presupposing that the event time is co-extensive with the reference time which in turn includes the evaluation time.⁵⁷ Note that, in general, durative adverbial phrases are taken to predicate a coextension relation between event time and reference time ($t_E = t'$). In a sentence like that cited in (43f),

⁵⁶ Note, however, that this constellation may also have an existential interpretation, as illustrated by the following discourse fragment:

Our other news is that yesterday was Lacey's last day here at RHD. She will be starting a new job with the City of College Station in May. Lacey has worked here for exactly a year, and has helped many of our clients with their web site updates this year. I wanted to thank Lacey and wish her the best with her new job! (http://ranchhousedesigns.blogspot.com/2008_05_01_archive.html)

In cases like this, the previous context explicitly precludes that the Present Perfect form *has worked* has a universal reading.

⁵⁷ Note that a similar analysis could be applied to cases like the following, where a Present Perfect form is modified by a frame adverbial denoting an unspecific past time: In the past, he has occasionally assembled, played guitar in, written for and sung in local (Ann Arbor, Los Angeles, Cleveland, London, Palo Alto) bands (<http://www.myspace.com/gvbc>)

Under the assumption that indefinite past time adverbials by default are interpreted as denoting the semantic past—the maximal interval prior to speech time, the anterior aspect would be interpreted as a coextension relation between event time and reference time, the final subinterval of which would be constituted by evaluation time/speech time.

on the other hand, the durative adverbial phrase *for 13 years* primarily seems to relate to the event time interval which in turn properly includes the reference time specified by the frame adverb *today* (cf. Panchewa and von Stechow 2004). In order to account for these cases, I shall assume that present anterior categories tend to be associated with an extended now (XN) reference time interval to which the durative adverbs in (43ef) relate. I shall also assume that this interval can be further modified by frame adverbs like *today* which denoting a reference time interval which includes the time of the utterance.

The assumption that the anterior aspect denotes a partial precedence relation between event time and reference time provides a straightforward way of harmonizing the universal reading with the other readings typically associated with the anterior aspect. Specifically, the partial precedence relation may, among other things, be interpreted in terms of strict precedence, of partial overlap, of coextension and of (proper) inclusion.⁵⁸ The existential, resultative and recent past readings are interpreted as a strict precedence relation between event time and reference time ($t_E < t'$). The universal reading, on the other hand, is typically interpreted as a coextension relation between event time and reference time ($t_E = t'$). These two instantiations of the anterior aspect may be schematically represented as follows:

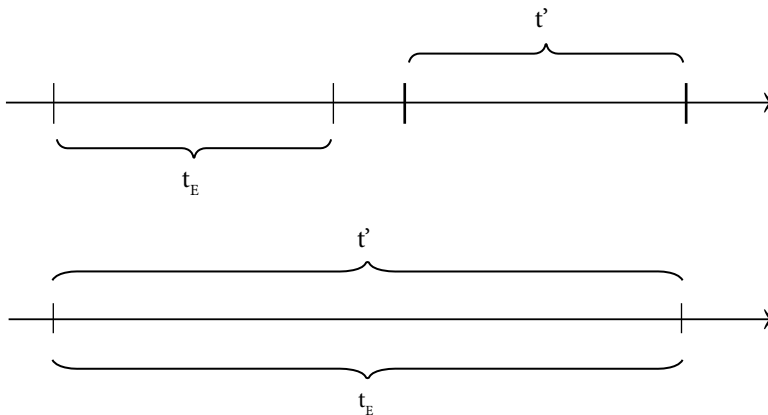


Figure 1.12: The existential and universal readings of the anterior aspect

⁵⁸ Given that partial precedence involves partial overlap and that coextension and inclusion may be interpreted as specific subtypes of overlap.

The assumption that the anterior aspect denotes a partial precedence relation between event time and reference time has the further advantage that it provides a principled explanation for the fact that anterior forms of atelic predicates tend to be incompatible with an inchoative-ingressive reading. Consider the acceptability difference between the following examples:

- (44) a. *Bianca has walked at two years because her feet inclined outward
 b. Bianca ha camminato a due anni perchè aveva i
 Bianca walk-PST.CMP at two years because have-IPF
 piedi inclinati verso l' esterno (Internet)⁵⁹
 feet inclined towards the outward
 'Bianca started walking at two years because her feet inclined outward'

On the assumption that the anterior aspect denotes a partial precedence relation between event time and reference time, it may be interpreted as a proper inclusion relation between event time and reference time such that event time properly includes reference time, but not such that reference time properly includes event time. The inchoative-ingressive reading thus is excluded with anterior categories and hence may be regarded as typologically relevant in the sense suggested in section 1.1.3.

In some languages, anterior categories may be used with the implication that the information conveyed by the sentence is based on secondary evidence, a reading which may be labeled 'inferential'. In some cases the anterior aspect is even obligatory in inferential statements. Consider the following examples:

- (45) a. Tyven har tatt seg inn ved å "dirke" opp et vindu
 The.thief take-PRF REFL in by to pick.the.lock up a window
 inn til leiligheten (Internet)⁶⁰
 in to the.apartment
 'The thief has entered by picking up the lock of a window leading into the apartment'

⁵⁹ <http://www.cercasalute.it/csforum/read.php?3,16,16>

⁶⁰ <http://nyheter.radiohaugaland.no/les.aspx?artikkel=47734>

- b. The thief must have entered in the dead of night using the chimney as a secret passage (Internet)⁶¹

In cases like this, the speaker implies that the information is not based on eyewitness evidence. It may be regarded as a special case of the resultative reading, where the speaker infers the existence of a past event from a present state.

Before concluding this section we may briefly note that many languages have a separate resultative category which is typically used to express that the state resulting from the completion of a past event holds at evaluation time. Within the present framework resultative categories may be regarded as a semantically specific variant of the anterior aspect, denoting an immediate precedence relation between event time and reference time ($t_e > t'$). Consider the following examples:

- (46) a. It's gone...and I don't miss it (Internet)⁶²
 b. The 2009 SharePoint Conference, happening next week from October 19–22, in Las Vegas is now sold out (Internet)⁶³
 c. Putin silent as fiercest critic is murdered (Internet)⁶⁴

In cases like these, the English Resultative focuses the present state to refer only more or less indirectly to the preceding event.

A tentative formalization of the semantic differences between the most salient readings of the anterior aspect is given in (47).

- (47) a. existential: $[\lambda P.\lambda t'.\exists e(t_e(e) < t' \wedge |e| \geq 1 \wedge P(e) = T)]$
 b. resultative: $[\lambda P.\lambda t'.\exists e(t_e(e) > t' \wedge |e| = 1 \wedge P(e) = T)]$
 c. universal: $[\lambda P.\lambda t'.\exists e(t_e(e) = t' \wedge |e| \geq 1 \wedge P(e) = T)]$

Note that the existential as well as the universal reading are taken to be vague with regard to the cardinality of the situation.

⁶¹ http://www.jayzebear.com/book_shelf/written/a_test/story_test.html?ArdSI=2a2f396967c7706d5d172ac64e0a16e0

⁶² <http://derekparis.blogspot.com/2008/12/its-gone-and-i-dont-miss-it.html>

⁶³ <http://www.cmswire.com/cms/enterprise-cms/sharepoint-conference-2009-is-sold-out-005743.php>

⁶⁴ <http://www.guardian.co.uk/world/2006/oct/09/topstories3.russia>

1.2.4 *The neutral aspect*

Table 1.3 contains a so-called neutral aspectual category which is defined as a general overlap relation between reference time and event time. The idea of postulating a neutral aspectual category is adopted from Smith (1997). It should be noted, however, that the present account of this aspectual category differs in several significant respects from the account given in her work. The neutral aspect has not been subject to systematic study and much of what I have to say about it remains stipulative. Nevertheless, there is evidence that the neutral aspect can be shown to represent an aspectual type which behaves differently than the imperfective, the perfective and the anterior aspect.

The definition of the neutral aspect as a general overlap relation between reference time and event time ($t' \otimes t_e$) is motivated by the flexible behavior shown by neutral categories. For example, past neutral forms of telic verbal predicates are compatible with both a progressive past and a completive-sequential reading, as illustrated by the following examples from German:

- (48) a. Während er starb, fiel sein Blick auf den Mond (Internet)⁶⁵
 while he die-PRÄT fall-PRÄT his gaze on the moon
 ‘While he was dying, his gaze fell on the moon’
- b. Ich kam nach Hause, als eine Kleinigkeit,
 I come-SPL.PST to home eat-SPL.PST snack
 zog mich um und schloss mich dann
 change.clothes-SPL.PST me PTC and shut-SPL.PST me then
 in meinem Atelier ein (Internet)⁶⁶
 into my Atelier in
 ‘I came home, ate a snack, changed clothes and then shut
 myself in my atelier’

It was noted in Sections 1.2.1 and 1.2.2 that the progressive-processual reading predicates a proper inclusion relation between event time and reference time such that reference time is properly included in event time ($t' \subset t_e$), whereas the completive-sequential reading predicates a proper inclusion relation of the opposite type between these two parameters ($t_e \subset t'$). The fact that past neutral forms of telic predicates are compatible with a progressive-processual as well as a completive-sequential interpretation indicates that the neutral aspect is distinct from

⁶⁵ <http://www.kurzgeschichten.de/vb/archive/index.php?t-4297.html>

⁶⁶ <http://www.imagine-the-blue-sky.de/NeverendingStorys/SkulleeRose.html>

the perfective as well as from the imperfective aspect. Specifically, perfective forms of telic predicates are generally incompatible with a progressive-processual interpretation, whereas corresponding imperfective forms tend to be incompatible with a completive-sequential reading, as illustrated by the semantic unacceptability of the following sentences:

- (49) a. *Mentre è morto, il suo sguardo è caduto sulla luna
 While die-PST.PRO the his gaze fall-PST.PRO at.the moon
 ‘While he was dying, his gaze fell on the moon’
- b. *Je arrivais chez moi, je mangais un petit morceau,
 I come-IPF home I eat-IPF a small bite
 je me changeais et je me barricadais dans mon atelier
 I RFL change-IPF and I RFL shut.in-IPF in my atelier
 ‘I came home, ate a snack, changed clothes and then shut myself in my atelier’

Furthermore, it is significant that the neutral aspect, just like the perfective and anterior aspect, is compatible with a resultative interpretation when combined with telic predicates, and that it, like the perfective aspect, but unlike the anterior aspect, is compatible with an inchoative-ingressive reading when combined with atelic predicates. Consider the following examples from Gothic and Norwegian:

- (50) a. jah qap Iesus: du stauai ik in þamma
 and say-PST.SPL Jesus: for judgement I to this
 fairhvau *qam*,
 world come-PST.SPL
 ei þai unsaihvandans saihvaina
 so that the blind seeing
 jah þai saihvandans blindai wairþaina (John IX 39)
 and the seing blind become-OPT
 ‘And Jesus said: For judgment I have come to this world, so that they who are blind might see and that they who see might become blind’
- b. Plutselig visste jeg at noe var
 suddenly know-PRET I that something be-PRET
 galt (Internet)⁶⁷
 wrong
 ‘Suddenly I knew that something was wrong’

⁶⁷ <http://www.bokkilden.no/SamboWeb/produkt.do?produktId=142262&rom=MP>

Moreover, neutral forms are compatible with a habitual as well as an iterative reading, as illustrated by the German examples in (51).

- (51) a. Stoiber rauchte früher täglich 60 filterlose
 Stoiber smoke-PRÄT earlier daily 60 without.filter
 Zigaretten (Internet)⁶⁸
 cigarettes
 'Earlier, Stoiber used to smoke 60 cigarettes daily'
- b. Dreimal fand er Arbeit, dreimal ging sein
 thrice find-PRÄT he work thrice go-PRÄT his
 Arbeitgeber pleite,
 employer bankrupt
 dreimal war er arbeitslos geworden (Internet)⁶⁹
 thrice AUX he unemployed become-PPF
 'He found work thrice, his employer went bankrupt thrice and
 he became unemployed thrice'

In this respect, the neutral aspect differs both from the imperfective aspect, which is typically restricted to a habitual reading under its multiple event reading, and from the perfective aspect, which is typically restricted to an iterative reading under its multiple event reading.

The brief discussion in this section suffices to show that the neutral aspect has a different set of readings than the other three aspectual types distinguished previously in this work.

1.2.5 *Aspect and temporal remoteness in English and Russian*

Section 1.1.2 noted that some languages have a verbal system in which temporal remoteness is grammaticalized. This section shall briefly consider some ways in which temporal remoteness notions interact with aspectual distinctions in languages which do not have a grammaticalized temporal remoteness system. For reasons of space and clarity, the present discussion is limited to English and Russian, which have fundamentally different aspect systems, but the evidence from these languages is typologically significant enough to warrant some more

⁶⁸ <http://www.pr-inside.com/de/stoiber-rauchte-frueher-taeglich-60-filterlose-r503634.htm>

⁶⁹ http://zeus.zeit.de/text/2003/21/Stra_a7gr_8abchen_21

general conclusions about the relationship between aspect and temporal remoteness.

Within the present framework, the recent or immediate past relation is defined as an immediate adjacency relation between reference time and evaluation time ($t' > t_0$). On the face of it, this relation is independent of aspectual notions, as illustrated by the following examples from English and Russian:

- (52) a. So I was washing my hands just now and I look up and notice that I have this one grey hair. (Internet)⁷⁰
- b. i couldn't even be bothered to take the necessary measures to avoid the paper cuts from the filing i did this morning, and paid dearly for it when i washed my hands just now (Internet)⁷¹
- c. Just now I have read the summer issue of Programs and People (Internet)⁷²
- d. я сейчас *делала* тесто (Internet)⁷³
I just take-PST.IPV test
'I was just making dough'
- e. Я сейчас ещё раз *прочитал* твое первое
I just yet time read-PST.PFV your first
сообщение (Internet)⁷⁴
message
'I just read your first message again'

These examples illustrate that the imperfective aspect (52a), the neutral aspect (52b and 52d),⁷⁵ the anterior aspect (52c) as well as the

⁷⁰ http://forum.xbox365.com/ubb-data/ultimatebb.php?ubb/get_topic/f/4/t/017441/p/1

⁷¹ <http://c-ookiemane.livejournal.com/2007/05/14/>

⁷² <http://info.ag.uidaho.edu/magazine/summer06/letters/readers.htm>

⁷³ <http://www.rodin.ru/conference/lofiversion/index.php/t28735-1250.html>

⁷⁴ <http://forums.amdm.ru/index.php?s=dc2d187e26a0e1b92d9a13f0d4de980e&showtopic=19657>

⁷⁵ Some readers may find the claim that the Russian Past Imperfective denotes the neutral aspect and hence represents the same aspectual category as the English Simple Past difficult to accept, as these two categories tend to show rather different patterns of behavior in discourse. However, I believe that their behavioural difference reflects that they are subject to different patterns of morphosyntactic blocking, the Russian Past Imperfective being opposed to the markedly perfective Past Perfective and the English

perfective aspect (52e) are compatible with *just now* and *сейчас* ‘(just) now’. Adverbs of this type may be taken to unambiguously specify an objectively recent reference time which among other things immediately precedes evaluation time ($t' > t_0$). Significantly, however, the sentences in (52) apparently also imply that the event time is located immediately prior to evaluation time ($t_e > t_0$). This fact suggests that objectively recent past contexts presuppose that the reference time and the event time are located immediately prior to evaluation time ($t', t_e > t_0$). The above examples indicate that all four principal aspect types distinguished in the course of the previous discussion are compatible with this kind of context.

However, these considerations suggest that objectively recent past contexts only represent a small subset of all contexts with recent past time reference in the sense defined here, i.e. contexts presupposing that the reference time is located immediately prior to evaluation time ($t' > t_0$). Recall from the discussion in Section 1.1.2 that so-called recent past categories in some languages can be used to represent situations which are located in the objectively remote past as subjectively proximate. It is significant that the English Simple Past and Present Perfect are fully compatible with a subjectively proximate past reading in contexts specifying a reference time which is not located immediately prior to evaluation time, whereas the Past Progressive is distinctly odd in this kind of context. Consider the following examples:

- (53) a. In fact he just moved to LA a few weeks ago and is eager and enthusiastic about the possibilities (Internet)⁷⁶
- b. ?In fact he was just moving to LA a few weeks ago and is eager and enthusiastic about the possibilities
- c. He has just recently moved to Barcelona, Spain to work as a freelance producer and develop his first own feature-film project (Internet)⁷⁷

Simple Past being opposed to the markedly imperfective Past Progressive on the one hand, and to the markedly anterior Present Perfect on the other. Note also that my definition of the neutral aspect is inspired by the semantic definition of the Russian Past Imperfective given in a recent study by Atle Grønn (2004).

⁷⁶ <http://www.gaylinkcontent.com/storydetail.cfm?storyid=2604>

⁷⁷ <http://www.halfemptythefilm.com/cast-and-crew.html>

- d. ?He was just recently moving to Barcelona, Spain to work as a freelance producer and develop his own feature-film project

The acceptability differences between these pairs of sentences indicate that contexts presupposing a subjectively proximate past interpretation are sensitive to aspectual distinctions. The explanatory potential of the present framework would be significantly enhanced if it could account for these distribution patterns in a principled manner.

Assuming that the English Past Progressive denotes the progressive aspect, the Present Perfect the anterior aspect and the Simple Past the neutral aspect, their distribution in examples like those cited above can be explained as the result of different compatibility constraints. More specifically, the basic aspectual specification of the Past Progressive may be supposed to exclude the possibility of assuming a subjectively proximate past reading in the sense intended here. According to the approach developed in this work, the subjectively proximate past reading presupposes that the reference time is located immediately prior to evaluation time, but that the event time is not located immediately prior to evaluation time ($[t' > t_0]$, $\neg[t_E > t_0]$). This relation presupposes that at least one subinterval of the reference time is located after the event time, something which is *a priori* excluded with progressive categories, given that the progressive aspect denotes a proper inclusion relation between reference time and event time ($t' \subset t_E$).

The anterior Present Perfect, on the other hand, represents a more suitable expression of the subjectively proximate past. Among other things, its semantic specification makes it possible to represent the event time as prior to and partly overlapping with reference time or as fully preceding the reference time, hence imposing few restrictions on the relationship between these two parameters. The Present Perfect may therefore in many respects be regarded as an optimal expression of subjectively proximate past. However, being inherently incompatible with definite past reference times, the Present Perfect is *a priori* excluded from a considerable subset of contexts with a subjectively proximate interpretation, e.g. contexts like that cited in (52a). In contexts where the Present Perfect is excluded, one typically finds the neutral Simple Past, which in many respects represents the default past tense in English. Within the present framework, the use of the Simple Past in subjectively proximate past contexts thus may be understood as the result of a blocking process, where the semantically more specific Present Perfect, which is a more appropriate category for

expressing this particular relation, tends to be preferred to the Simple Past. However, as the Present Perfect is not fully compatible with every kind of subjectively proximate past context, it leaves some room for the Simple Past.

In Russian, on the other hand, the situation is somewhat different. It is well known that there is a strong tendency toward using the Past Perfective in contexts with a markedly subjectively proximate past meaning, whereas the so-called Past Imperfective tends to be restricted to contexts where this reading is not intended, although it does occasionally occur in subjectively proximate past contexts. Consider the following examples:

- (54) a. Год назад прочитал книгу «Легкий способ бросить
 year ago read-PST.PRF book easy way quit
 курить»
 smoke-INF
 Аллена Карра. После 42-х лет курения вот уже
 Allen Carr after 42 years smoking PTC already
 год
 year
 отдыхаю от дыма (Internet)⁷⁸
 take.a.rest-PRS.IPF from smoke
 'A year ago I read Allen Carr's book "Easy Way to Stop
 Smoking". After 42 years of smoking I have already taken a
 rest from smoke for a year'
- b. я эту книгу лет 5 назад читал, как
 I this book years 5 ago read-PST.IPF as
 курил
 smoke-PST.IPF
 так и курю (Internet)⁷⁹
 thus and smoke-PRS.IPF
 'I read this book five years ago; I (still) smoke as I smoked then'

⁷⁸ <http://board.nigma.ru/phpbb/viewtopic.php?p=12397&sid=144265aa36d9ead15270067a6be39a7c>

⁷⁹ http://rutor.org/torrent/4163/%D0%90%D0%BB%D0%BB%D0%B5%D0%BD_%D0%9A%D0%B0%D1%80%D1%80_%D0%9B%D0%B5%D0%B3%D0%BA%D0%B8%D0%B9_%D1%81%D0%BF%D0%BE%D1%81%D0%BE%D0%B1_%D0%B1%D1%80%D0%BE%D1%81%D0%B8%D1%82%D1%8C_%D0%BA%D1%83%D1%80%D0%B8%D1%82%D1%8C_1985_MP3

- с. я читал. не курю уже 2.5 месяца...
 I read-PST.IPF not smoke-PRS.IPF already 2.5 months
 и не тянет даже в компании
 and not draw-PRS.IPF longer to company
 курильщиков (Internet)⁸⁰
 smokers
 'I read it. I've quit smoking for 2.5 months...and I'm no longer drawn to the company of smokers (lit. it draws me no longer to the company of smokers)'

In the first example, the Perfective Past form *прочитал* 'read, have read' denotes a past situation completed prior to speech time. This situation is represented as subjectively proximate or currently relevant in the sense that it has immediate consequences at evaluation time. The consequences are specified in the immediately following sentence. It was noted in section 1.2.2 that the perfective aspect tends to be associated with a resultative implicature and an inchoative-ingressive implicature that in many respects resembles and perhaps even could be supposed to generate the subjectively proximate past reading with telic and atelic predicates respectively. Within the present framework, the subjectively proximate past reading, the resultative reading and the inchoative-ingressive reading may be directly derived from the basic denotation of the perfective aspect ($t_E \subseteq t'$). Specifically, these readings may all be accounted for in terms of a proper inclusion relation between event time and reference time ($t_E \subset t'$). The subjectively proximate past reading and the resultative reading both presuppose that the reference time is interpreted as being located immediately prior to evaluation time ($t' > t_0$), but the subjectively proximate past reading additionally presupposes that the event time is not located immediately prior to evaluation time ($\neg[t_E > t_0]$).

In contrast, the Past Imperfective form *читал* 'read, was reading' in the second example appears to imply that the situation is not considered as subjectively proximate or currently relevant, as it did not cause an expected result. Smith (1997: 239) labels this use of the Russian Past Imperfective the 'convention of Discontinuity', which, among other things, implies that there is an interval between the endpoint of the situation and the evaluation time. This description corresponds quite

⁸⁰ <http://forum.konotop.net/literatura/196238-kto-chital-alen-karra.html>

well to the notion of non-immediate past developed here. Interestingly, however, the Russian Past Imperfective appears to be marginally compatible with a subjectively proximate past reading as well, as illustrated by the third example. It is thus compatible with the inference that the reference time is not located immediately prior to evaluation time ($\neg[t' > t_0]$) as well as the inference that it is ($t' < t_0$).

On the basis of the previous discussion, it is tempting to suggest that the basic neutral aspectual value of the Russian Past Imperfective in principle makes it compatible with an immediate as well as a non-immediate past reading but that the Past Perfective represents a more suitable expression of subjectively proximate past than the Past Imperfective as it, unlike the latter, presupposes that the event time cannot last longer than the reference time. The tendency to use the Past Perfective in subjectively proximate past contexts and the Past Imperfective in contexts with a markedly discontinuous meaning may thus be analyzed in terms of morphosyntactic blocking, where the semantically specific Past Perfective blocks the semantically more general Past Imperfective. From a formal perspective, this assumption incorporates the insight that the general inclusion relation denoted by the perfective aspect may be understood as a specific variant of the general overlap relation denoted by the neutral aspect.

The discussion of the relationship between aspect and temporal remoteness in this section has been based on a limited amount of data and consequently the general claims made here may appear somewhat dubious. However, they seem to capture some of the most important correlations between these two semantic dimensions. Specifically, past perfective and present anterior categories strongly tend to be preferred to past neutral categories in immediate past contexts. Past progressive categories, on the other hand, may be taken to be *a priori* excluded from this kind of context.

This concludes the theoretical part of this book which has developed a strong set of hypotheses about the semantics of event structure, tense, aspect, temporal remoteness and modality in natural language. The framework constituted by these hypotheses will form the basis of the discussion of the data from Early Vedic in the subsequent chapters.

CHAPTER TWO

AKTIONSART AND MORPHOSYNTAX IN EARLY VEDIC

In a framework like the one outlined in Chapter One, verbs and verb phrases may be regarded as a kind of basic building blocks in temporal and aspectual interpretation. This is, among other things, reflected in the assumption that certain lexical entailments have systematic impact on the construction of aspectual meaning across languages. As the main aim of this book is to gain new insights into the semantics of the Early Vedic verbal categories, this assumption will serve as a working hypothesis and will not be subject to systematic testing. Nevertheless, a clarification of the relationship between *Aktionsart* and morphosyntax in Early Vedic would provide a firmer empirical basis for the semantic analysis of the different tense/aspect/mood categories in the following chapters (cf. also Napoli 2007). This chapter addresses some issues which are particularly important to this end and is organized in two main sections. Section 2.1 examines some correlations between aspectually relevant lexical entailments and verbal morphology. Section 2.2 identifies the most important types of telic and atelic verb phrases.

2.1 *Lexical semantic features*

This section examines the relationship between lexical semantics and morphological variation in the Early Vedic verbal system. It should be noted from the outset that it does not attempt to give an exhaustive account of the mapping of lexical semantic features onto morphological forms. The main aim of the section is instead to establish the extent to which lexical semantic features determine the distribution of morphological forms in Early Vedic and to clarify the relationship between various lexical semantic notions which have traditionally been grouped together under the somewhat imprecise label '*Aktionsart*'. Although particular attention will be paid to the aspectually relevant semantic features differentiated in Chapter Two, we will also have to consider other lexical semantic features. The theoretical apparatus outlined thus far will therefore have to be refined in order to arrive at a sufficiently precise descriptive model of lexical semantics.

Much of what will be said about the relationship between lexical semantics and morphosyntax in the following paragraphs represents generalizations that crucially depend on the interpretation of individual verbal lexemes. It remains unclear, however, how we can determine the exact meaning of a given lexeme in a dead language like Early Vedic. Before proceeding to the primary data, it may therefore be useful to outline briefly some basic methodological assumptions concerning the comparison of lexical items with similar semantic properties across languages.

It is well known that a considerable part of the lexicon of any given language is culture-dependent, even though all languages may be assumed to have verbs for some basic human experiences, like being born or dying. One situation or state of affairs can therefore be conceptualized in different ways in different cultures. Recent research in lexical typology indicates that this in fact proves to be the case even with the most basic human experiences. For instance, Botne (2003, cf. also Napoli 2006b) explores the lexical semantics of verbs meaning 'to die' across languages and shows that there is some (though not unlimited) variation as to which parts of this complex situation type are lexicalized or included in their 'lexical span' (cf. Smith 1997: 21). His investigation results in a classification of four different types of verbs meaning 'to die': a *transitional* type which has a lexical span including the pre-terminal state, the terminal change of state and the post-terminal state, an *inceptive* type which has a lexical span including the pre-terminal state and the terminal change of state but excluding the post-terminal state, a *resultative* type which has a lexical span including the terminal change of state and the post-terminal state but excluding the pre-terminal state, and an *acute* type which has a lexical span including the terminal change of state but which excludes the pre- and post-terminal states.¹ Within the present framework, the acute and resultative types may be analyzed as inherently specifying the punctuality feature,² whereas the transitional and inceptive types

¹ In fact, Botne (2003: 233, 276) proposes that this classification exhausts the potential range of achievement verbs, something which would imply a more fine-grained classification of achievement verbs than the one adhered to in this work. Although this idea is appealing, only some subtypes of achievement verbs prove to be grammatically relevant in Early Vedic, as will be discussed below.

² These two classes may be regarded as variants of the instantaneous achievement type, as defined in Chapter One.

may be taken to be underspecified in this respect,³ something which implies that the basic human experience of dying is conceptualized in different ways across languages and that verbs describing this basic experience differ in grammatically relevant respects. In contrast, all the classes distinguished by Botne appear to entail that the subject argument undergoes a change of state and one may therefore assume that this lexical aspectual feature is universally associated with verbs of dying.⁴

These observations suggest that all languages have at least one *achievement* or *instantaneous achievement* verb denoting this basic experience. Moreover, one could assume that verbs of dying typically represent *unaccusative* verbs, i.e. intransitive verbs which imply that the subject argument is patient- or experiencer-like rather than agent-like. Above all, the subject argument of verbs of dying typically lacks control over the situation and is terminally affected by the situation. In contrast, intransitive verbs with an agent-like subject argument, as for instance undirected motion verbs like *go* or *run*, are conventionally labeled *unergative*.

At this point, we need to clarify what it means for a subject argument to be agent-like, patient-like or experiencer-like. These traditional thematic roles are taken to be defined in terms of different prototypical sets of privative lexical entailments (cf. e.g. Dowty 1991, Grimm 2005, Levin and Rappaport Hovav 2005). More specifically, a prototypical agent may be defined in terms of *volitionality*, i.e. to plan consciously to bring about the situation denoted by the verb, *sentience*, to be consciously involved in the situation denoted by the verb, *instigation* or the property of effecting the situation, *motion* if the verb implies some kind of motion, as well as *existential persistence* and *qualitative persistence* through the situation (cf. Grimm 2005: 20–22). A prototypical

³ These two classes may be regarded as variants of the general achievement type, as defined in Chapter One.

⁴ A potentially problematic aspect with Botne's classification is that he does not systematically specify whether the different types of verbs are paired with a state verb spanning the postterminal state. One might for instance speculate that the distinction between acute and resultative verbs on the one hand, and ingressive and transitional verbs on the other, could reflect a lexical blocking process, where the acute and ingressive types primarily would occur in languages having a state verb spanning the post-terminal state, whereas the resultative and transitional types primarily would occur in languages lacking a verb of this type. A full evaluation of this possibility must be postponed to another occasion.

patient, on the other hand, may be defined in terms of lacking all these entailments, whereas a prototypical experiencer may be taken to lack some of the entailments, e.g. instigation and volitionality, but presuppose others, most notably sentience and persistence through the situation. According to this prototype approach, unergative verbs may be preliminarily defined as intransitive verbs entailing that the subject argument has most of the agent properties, whereas unaccusative verbs may be somewhat more vaguely defined as intransitive verbs underspecified with regard to volitionality and instigation. The classification of two-place verbs is considerably more complicated, as it must take into consideration not only the lexical entailments determining the status of the subject argument but also those entailments that determine the status of the object argument.

A lexical decomposition formalism along the lines of Levin and Rappaport Hovav (1995 and elsewhere) allows for distinguishing state verbs from unaccusative change of state verbs and unergative activity verbs in the manner illustrated in (55).⁵

- (55) a. $\lambda x [x <STATE>]$ (state)
 b. $\lambda x [[BECOME [x <STATE>]]]$ (achievement)
 c. $\lambda x [x ACT_{<MANNER>}]$ (activity)

The basic idea underlying these schematic representations is that different types of verbs are associated with different event structure templates which contribute to determining their morphosyntactic properties. Recall from the discussion in Chapter One the distinction between universal and idiosyncratic aspects of verb meaning. In the representation in (55) the universal component or ‘template’ appears in bold characters, whereas the idiosyncratic component of meaning or ‘root’ appears in italics. The argument is represented as a variable (x). Recall that the lambda operator (λ) abstracts over the argument variable, hence ensuring that the predicate picks out exactly the set of things that have the property it specifies. According to this approach, the meaning of a verb like Vedic *MAR*- ‘die’ may be formally represented as $\lambda x [[BECOME [x <DEAD>]]]$, that of the verb *AY*- ‘go’ as

⁵ This classification is intended to incorporate the intuition that one-place state verbs can be either unaccusative or unergative. However, I shall argue below that one-place state verbs are radically underspecified in this respect and that the idiosyncratic component of meaning determines whether the subject may have an agentive interpretation or not.

$\lambda x [x \text{ ACT}_{\langle GO \rangle}]$ etc. In this formal representation, the change of state feature is represented as [BECOME] and the dynamicity feature as [ACT]. The formal representations in (55) incorporate the intuition that achievement verbs denote a more complex situation type than state and activity verbs, an advantage of this approach. Note, however, that all these verbs are taken to denote situations which consist of only one sub-event.

The verb types discussed so far represent the most important examples of one-place verbs. A formal representation of some recurrent types of two-place verbs is given in (56).

- (56) a. $\lambda x \lambda y [[x \text{ <STATE>} \underline{y}]]$ (two-place state)
 b. $\lambda x \lambda y [[x \text{ ACT}_{\langle MANNER \rangle} \underline{y}]]$ (two-place activity)
 c. $\lambda x \lambda y [[x \text{ ACT}_{\langle MANNER \rangle}] \text{ CAUSE } [y \text{ ACT}_{\langle MANNER \rangle}]]]$
 d. $\lambda x \lambda y [[x \text{ ACT}_{\langle MANNER \rangle}] \text{ CAUSE } [\text{BECOME } [y \text{ <STATE>}]]]$
 (causative accomplishment)

The formal representations given above demonstrate that in order to classify two-place verbs one requires a more sophisticated formal apparatus. First, drawing on the discussion in Levin (1999, 2000) two-place state verbs like Vedic *DVEṢ-* ‘hate’ and two-place activity verbs like *NAY-* ‘lead’ are taken to have the same basic event structure templates as their one-place counterparts. They are hypothesized to denote situations consisting of one subevent only but to have a root demanding an additional argument, which is represented by the underlined argument variable (\underline{y}). On the other hand, two-place causative accomplishment verbs like *BHED-* ‘split, break’ or *MOC-* ‘release, set free’ are taken to denote a complex situation consisting of two temporally independent sub-events, an activity and an achievement, as well as a causal relation between them which is represented as [CAUSE].

There are about twelve different Present stem types and seven different Aorist stem types in Early Vedic.⁶ Some of these stem types have an evidently derivational character, in the sense that they significantly alter the meaning of the base verb. Others appear to be inflectional in that they contribute a limited amount of information to the information given by the verb. Following Bybee (1985), the distinction between derivation and inflection may be regarded as gradual rather

⁶ Macdonell (1910: 318–351, 365–385) provides an overview of the various Present and Aorist stem types.

than abrupt. Rather than being fundamentally opposed, these two notions can be conceived of as poles at the opposite ends of a scale, so that a given construction can be more or less derivational or inflectional. This assumption provides a neat way of classifying the various Present and Aorist stem types found in Early Vedic. For example, the so-called Causative Present formed by adding the suffix *-aya-* to the strengthened form of the verbal root, and the Causative Aorist, formed by a particular type of reduplication, represent paradigm examples of highly derivational morphological categories, as they increase the valency of the verb by adding one participant and hence may be taken to significantly alter the meaning of the verb. The examples in (57) illustrate how the Causative Present and Aorist are used to derive a two-place verb from a one-place verb.

- (57) a. *góbhiḥ sām̐naddhā patati prásūtā /*
 cows-INS bound.together-NOM fly-3SG.PRS incited-NOM
 ‘Being tied with cow-leather (the arrow) flies, incited’⁷
 (RV VI 75.11b)
- b. *út pātayati pakṣiṇaḥ //*
 up make.fly-3SG.PRS birds-ACC
 ‘She (Uṣas) makes the birds fly upwards’⁸ (RV I 48.5d)
- c. *úd apaptad asaú sūryaḥ*
 up fly-3SG.AOR this-NOM sun-NOM
 ‘This sun has flown upwards’⁹ (RV I 191.9a)
- d. *ní ṣīm vṛtrása mārmaṇi*
 down the-ACC Vṛtra-GEN mortal.spot-LOC
 vájram índro apīpatat //
 mace-ACC Indra-NOM make.fly-3SG.AOR
 ‘Indra made the mace fly into the mortal spot of Vṛtra’¹⁰ (RV VIII 100.7cd)

⁷ Cf. Geldner (1951b: 177–178): ‘Mit Rinder(sehnen) umbunden fliegt er ent-sandt.’

⁸ Cf. Geldner (1951a: 59): ‘Die Vögel treibt sie zum Aufflug.’

⁹ Cf. Geldner (1951a: 273): ‘Jene Sonne ist aufgeflogen.’

¹⁰ Cf. Geldner (1951b: 429): ‘Auf die verwundbare Stelle des Vṛtra hat Indra die Keule geschmettert.’

These examples illustrate that the verb *PAT*- ‘fly’ represents a one-place activity verb of the type schematically represented in (55c), whereas the corresponding Causative Present *pātaya*- and Aorist *pīpata*- represent two-place verbs of the type schematically represented by (56c) and are distinguished from the base verb by the [CAUSE] feature and an additional sub-event which may be assumed to represent a one-place activity verb. Example (57b) illustrates that a derived causative verb does not necessarily imply a change of state and thus strengthens the claim that these two notions should be kept apart. In the case of the Causative Present and Aorist, the relationship between *Aktionsart* and morphosyntax is predictable and these two morphological categories will be generally excluded from the discussion in the remainder of this chapter.¹¹

There are at least two other morphological categories in Early Vedic which have traditionally been taken to have derivational rather than inflectional status, namely the reduplicated Intensive stem of the type *jañghan*- ‘strike violently’ from *HAN*- ‘strike’ and the reduplicated sigmatic Desiderative stem of the type *jighāṃsa*- ‘wish to strike’, also from *HAN*- ‘strike’. As these two categories have recently been discussed in two extensive studies (cf. Schaefer 1994 on the Intensive and Heenen 2006 on the Desiderative) and, moreover, appear to have a rather marginal status in the Early Vedic tense/aspect/mood system, only occasional reference will be made to them in this work.

Apart from the four stem types mentioned so far, we find about eight types of Present stem formations and about seven types of Aorist stem formations (cf. e.g. Macdonell 1910: 318–385, Elizarenkova 1960, 1982).¹² However, some of the Present stem types, most notably those formed by means of the suffixes *no*-/ *nu*- (e.g. *kṛno*-/ *kṛnu*- from *KAR*- ‘do, make’), *nā*-/ *nī*- (e.g. *grbhñā*-/ *grbhñī*- from *GRABH*- ‘seize, take’) and the infix *-na*-/ *-n*- (e.g. *yunaj*-/ *yuñj*- from *YOJ*- ‘yoke’), appear to be closely related from a formal point of view and hence may be regarded as representing one and the same basic stem type. A similar point

¹¹ I refer to Jamison (1983a) for a detailed discussion of the semantics of the *-aya*-Presents. Cf. also Kulikov (2010).

¹² Although it is well known that many verbs select more than one Present or Aorist Stem type in Early Vedic, alternations of this type and their possible semantic motivation will mostly be ignored in the following. I refer to Dahl 2005 and Joachim 1978 for discussion.

could be made with regard to some of the Aorist stem types, above all those formed with the suffixes *-s-* (e.g. *bhārṣ-* from *BHAR-* ‘bear, carry’), *iṣ-* (e.g. *kramiṣ-* from *KRAM-* ‘stride’), *-siṣ-* (e.g. *yāsiṣ-* from *YĀ-* ‘drive’) and *-sa-* (e.g. *vṛkṣa-* from *VARH-* ‘tear, pluck’). With these modifications, we arrive at a slightly less complex picture, with five Present stem types, four Aorist stem types and one Perfect stem type.

Present, Aorist and Perfect stem selection represents an area of Early Vedic morphosyntax which, to a considerable extent, appears to be sensitive to lexical semantic differences. The well-known distribution pattern of the so-called root Aorist stem represents a convenient point of departure. Various scholars have noted that this stem type is typically found with punctual verbs in Early Vedic (cf. e.g. Delbrück 1897: 74–82, Hoffmann 1967: 271–272, 1970: 30–32). Note, however, that accomplishment verbs like *KAR-* ‘work, make’ and *VAR²-* ‘cover’, which do not represent punctual verbs in a strict sense, select a root Aorist stem (cf. e.g. *ákar* ‘he made, has made’, *ávar* ‘he covered, has covered’). Moreover, semelfactive verbs like *TRAS-* ‘shiver’, *DAMŚ-* ‘bite’ and *REH-* ‘lick’ which are punctual in a strict sense, do not have a root Aorist.¹³ These facts suggest that the traditional generalization is not correct and we therefore need to reconsider the primary data. Table 2.1 gives a sample of verbs selecting a root Aorist stem.

Table 2.1: Verbs selecting a root Aorist stem in Early Vedic

<i>KAR-</i> ‘do, make’	<i>kar-/kr-</i>	<i>akar</i> ‘made, has made’
<i>GAM-</i> ‘go, come’	<i>gam-/gm-</i>	<i>agan</i> ‘came, has come’
<i>GRABH-</i> ‘seize, take’	<i>grabh-/grbh-</i>	<i>agrbhran</i> ‘they took, have taken’
<i>GHAS-</i> ‘consume, exhaust’	<i>ghas-/kṣ-</i>	<i>ághas</i> ‘consumed, has consumed’
<i>CAY¹-</i> ‘note’	<i>cay-/ci-</i>	<i>áčet</i> ‘noted, has noted’
<i>CAY²-</i> ‘gather’	<i>cay-/ci-</i>	<i>áčet</i> ‘gathered, has gathered’
<i>JOṢ-</i> ‘become pleased’	<i>joṣ-/juṣ-</i>	<i>ajuṣran</i> ‘they became pleased, have become pleased’
<i>TAN-</i> ‘stretch’	<i>tan-/tn-</i>	<i>atan</i> ‘stretched, has stretched’
<i>DĀ-</i> ‘give’	<i>dā-/dī-</i>	<i>adāt</i> ‘gave, has given’

¹³ In fact, most verbs with a semelfactive meaning in Early Vedic do not have any Aorist. A possible exception to this general rule is *JAMBH¹-* ‘bite, snap’ which has an isolated Aorist Subjunctive form *jambhiṣat* (RV X 86.4).

Table 2.1 (*cont.*)

DHĀ- 'place, put'	dhā-/dhī-	adhāt 'placed, has placed'
NAŚ ¹ - 'reach'	naś-/aś-	ānaṣ 'reached, has reached'
BHAV ¹ - 'be, become'	bhū-	abhūt 'became, has become'
BHED- 'split'	bhed-/bhid-	abhed 'split, has split'
MOC- 'release'	moc-/muc	amugdhvam 'you released, have released'
YAM- 'stretch out'	yam-	ayamur 'they stretched out, have stretched out'
YOJ- 'yoke'	yoj-/yuj-	ayukta 'yoked, has yoked'
VAR ¹ - 'choose'	var-/vr-	avri 'I chose, have chosen'
VAR ² - 'cover'	var-/vr-	āvar 'covered, has covered'
VART- 'turn round'	vart-/vrt-	āvart 'turned round, has turned round'
VEŚ- 'enter'	veś-/viś-	aviśran 'they entered, have entered'
ŚRAY- 'lay'	śray-/śri-	aśret 'laid, has lain'
SARJ- 'let loose'	sarj-/srj-	āsrgan 'they let loose, have let loose'
STHĀ- 'stand up'	sthā-/sth-	ástthāt 'stood, has stood'
SPAR ¹⁴ 'let loose'	spar-/spr-	aspar 'let loose, has let loose'

The data above indicate that the root Aorist stem is compatible with achievement verbs, instantaneous achievement verbs and accomplishment verbs in Early Vedic.¹⁵ These classes of verbs share a common feature, namely that they entail that the distinguished verbal argument undergoes a change of state. It was briefly noted earlier that semelfactive verbs generally do not select a root Aorist and the following table indicates that this is the case with several activity and state verbs as well. These classes of verbs rather tend to select a sigmatic Aorist stem.

¹⁴ Cf. Mayrhofer (1996: 773) s.v. SPAR- 'gewinnen, erwerben'.

¹⁵ There is one prominent apparent counterexample to this general rule, namely the so-called Passive Aorist of the type *astāvi* 'was praised, has been praised' from STAV- 'praise' which also seems to be marginally compatible with activity verbs. It remains unclear, however, to what extent the occurrence of a form of this type really suffices as an indication that a given verb had a Root Aorist stem, as such forms, among other things, differ from the latter with regard to ablaut grade and hence appear to be paradigmatically isolated. I refer to Insler 1968 for a thorough discussion of this morphological category.

Table 2.2: Activity and State verbs with a sigmatic Aorist stem

AV ¹ - 'help, support' CAR- 'move'	aviṣ- cāriṣ-	āvīt 'helped, has helped' acāriṣam 'I moved, have moved'
DHĀV- 'run, flow' NAY ¹ - 'lead' NART- 'dance'	dhāviṣ- naiṣ-/neṣ- nartiṣ-	adhaviṣṭa 'ran, has run' aneṣata 'they lead, have lead' ánartiṣur 'they danced, have danced'
NED-/NIND- 'scold, revile' BHAR- 'bear, carry'	nindiṣ- bhārṣ-/bharṣ-/ bhṛṣ-	anindiṣur 'they scolded, have scolded' abhār 'carried, has carried'
YODH- 'fight' RAM- 'rest' RAṆ- 'be happy, rejoice'	yodhiṣ- raṃs- rāṇiṣ-	áyodhīt 'fought, has fought' áramṣta 'rested, has rested' arāṇiṣur 'they were happy, have been happy'
RAV ¹ - 'cry, bellow' REP-/LEP- 'smear'	rāviṣ- lips-	arāvīt 'cried, has cried' alipsata 'they smeared, have smeared'
ŚAY ¹ - 'lie' SVAR- 'sound, emit a sound'	śayiṣ- svārṣ-	aśayiṣṭhās 'you lay, have lain' ásvār 'sounded, has sounded'

The data summarized in Table 2.1 and 2.2 suggest that the root Aorist is restricted to change of state verbs in Early Vedic and that it is this semantic feature rather than punctuality which determines whether a given verb selects a root Aorist or not.

Although the data discussed so far suggest that the root Aorist directly reflects the change of state feature, it should be noted that a considerable group of change of state verbs select other types of Aorist stem formation as well. Most notably, many change of state verbs select a so-called thematic Aorist stem, typically derived from the weak form of the root by adding the suffix -a-. Consider the examples in Table 2.3.

Table 2.3: Verbs selecting a thematic Aorist stem in Early Vedic

AS- 'throw'	<i>as-</i>	<i>asan</i> 'they throw'
ĀP- 'get, obtain'	<i>āpa-</i>	<i>āpan</i> 'they obtained, have obtained'
KART- 'split, cleave'	<i>kṛta-</i>	<i>ákṛtas</i> 'you cut, have cut'
GARDH- 'become greedy'	<i>gr̥dha-</i>	<i>ághṛdhat</i> 'became, has become greedy'
TAN- 'stretch'	<i>tana-</i>	<i>atanat</i> 'stretched, has stretched'
DĀ- 'give'	<i>da-</i>	<i>ádat</i> 'gave, has given' ¹⁶
MOC- 'release'	<i>muca-</i>	<i>ámucat</i> 'released, has released'
RODH- 'stop, constrain'	<i>rudha-</i>	<i>arudhat</i> 'stopped, has stopped'
ROH- 'grow strong'	<i>ruha-</i>	<i>aruhat</i> 'grew strong, has grown strong'
VARJ- 'wring, bend, turn'	<i>vr̥ja-</i>	<i>avr̥jan</i> 'they wrought, have wrought'
VARDH- 'strengthen'	<i>vṛdh-</i>	<i>avṛdhat</i> 'strengthened, has strengthened'
VED- 'find'	<i>vida-</i>	<i>avidat</i> 'found, has found'
SAD- 'sit down'	<i>sada-</i>	<i>ásadat</i> 'sat down, has sat down'
SAN ¹⁷ - 'gain, win'	<i>sana-</i>	<i>ásanat</i> 'gained, has gained'
SAR- 'run off'	<i>sara-</i>	<i>ásarat</i> 'ran off, has run off'
SEC- 'pour'	<i>sica-</i>	<i>asican</i> 'they poured, have poured'

These data illustrate that several change of state verbs select a thematic Aorist stem.¹⁷ There seem to be no unambiguous examples of activity or state verbs selecting this kind of Aorist stem in Early Vedic. The root Aorist stem as well as the thematic Aorist stem thus seems to be

¹⁶ NB: The thematic Aorist stem is only attested when the verb *DĀ-* is combined with the preverb *Ā-*, the resultant compound yielding the meaning 'take'.

¹⁷ Note in particular that the verb *MOC-* 'release' has an (athematic) root Aorist stem as well as a weak thematic Aorist stem. Examples like this indicate that the weak thematic Aorist stem may, in some cases at least, be regarded as a secondary variant of the (athematic) root Aorist.

Table 2.4: Change of state verbs with a sigmatic Aorist stem

GAM- 'go, come'	<i>gas-</i>	<i>agasmahi</i> 'we came, have come'
GRABH ¹ - 'seize, take'	<i>grabhiṣ-</i>	<i>agrabhīt</i> 'took, has taken'
YOJ- 'yoke'	<i>yukṣ-</i>	<i>ayukaṣata</i> 'they yoked, have yoked'
VART- 'turn round'	<i>vṛts-</i>	<i>avṛtsata</i> 'they turned round, have turned round'
VEŚ- 'enter'	<i>vikṣ-</i>	<i>āvikṣata</i> 'they entered, have entered'
SARJ- 'let loose'	<i>sṛkṣ-</i>	<i>āsṛkṣata</i> 'they let loose, have let loose'
SAN ¹ - 'gain, win'	<i>sāniṣ-/saniṣ-</i>	<i>asāniṣam</i> 'I gained, have gained'

restricted to change of state verbs in Early Vedic and hence either of these two stems may be taken to indicate that a given verb is associated with the change of state feature. This is not to say, however, that verbs of this type necessarily select one of these stems. Several change of state verbs also select other Aorist stems, as illustrated by the data summarized in Table 2.4.

The observant reader will note that the verbs in Table 2.4 are also attested with a root Aorist stem or a weak thematic Aorist stem, as shown by Tables 2.2 and 2.3. This indicates that sigmatic Aorist stems from change of state verbs in the majority of cases have an obviously secondary character. It is significant that the sigmatic Aorist stems, unlike the root Aorist and the thematic Aorist, are compatible with change of state verbs as well as verbs underspecified in this respect, as this indicates that this stem type represents a semantically open class, something which is also reflected by the fact that it enjoys a considerable productivity in later stages of Vedic.¹⁸ The main conclusion to be drawn from the discussion so far is that Aorist stem selection appears to be partially determined by the presence or absence of the change of state feature. More specifically, verbs which are inherently underspecified with regard to this feature tend to eschew the root Aorist and the thematic Aorist stems.

As regards present stem selection, we may note a few significant patterns of co-occurrence between lexical semantic features and present

¹⁸ Cf. Narten (1964) for a discussion of the sigmatic Aorists in Vedic.

stem type. First, unaccusative verbs usually have a Present stem characterized by the suffix *-ya-*, as illustrated by Table 2.5. Note, however, that a few intransitive achievement verbs which could plausibly be regarded as unaccusative select another type of Present stem (e.g. *AR*²- ‘arrive’: *ṛcchāti*; *GAM*- ‘come’: *gacchati*; *SVAP*- ‘fall asleep’: *svapa*).¹⁹

This group of verbs presents us with a fairly complicated heuristic issue. Recall the definition of unaccusative verbs given above as intransitive verbs with a patient- or experiencer-like subject argument. As it stands, this definition is purposely vague with regard to the aspectual properties of this class of verbs, as it is perfectly conceivable that a situation of the type denoted by unaccusative verbs can be lexicalized either as an achievement or as a state, i.e. as a change of state verb and a verb underspecified in this respect, a possibility which was suggested by the definitions in (55). The previous discussion suggests a principled way of deciding whether a given unaccusative verb is an achievement, namely to check whether it has forms associated with it which can plausibly be interpreted as belonging to a root Aorist or a thematic Aorist stem. This appears to be the case with *JAS*- ‘get exhausted’, *NEŚ*- ‘perish’, *PAD*- ‘fall’, *POṢ*- ‘flourish’, *MAR*- ‘die’ and *REṢ*- ‘be hurt’ which, accordingly, may be regarded as achievement verbs. However, it remains unclear how this question can be settled in the case of *DAS*- ‘waste away’ and *ŚRAM*^I- ‘be exhausted’, as the sigmatic Aorist stem is not decisive in this respect, not to mention the case of *OC*- ‘be pleased’, *MOH*- ‘be confused’ or *SĀDH*- ‘succeed’ where no forms of an Aorist stem are attested, something which can either reflect that the verb did not possess an Aorist stem or be due to an accidental gap in the corpus. Moreover, the heuristic value of the thematic Optative form *puṣema* ‘may we flourish’ of the verb *POṢ*- ‘flourish’ and the athematic Indicative form *apadran* ‘they have

¹⁹ The meaning of this verb and its relationship to the semantically closely related verb *SAS*- ‘sleep’ remains disputed. Jamison (1983b: 8, fn. 2) appears to be of the opinion that there is no significant semantic difference between these two verbs. Barton (1985: 21), on the other hand, in my opinion rightly suggests that that *SVAP*- represents a (punctual) achievement with the meaning ‘fall asleep’, whereas *SAS*- has the meaning ‘sleep, be asleep’. In our present context, Jamison’s (1983b: 15–16) claim that the three attested Present stems associated with *SVAP*- in Vedic, *svap*-, *svapi*- and *svapa*- all are relatively young and that this verb originally supplied *SAS*- outside the Present has two interesting consequences. First, it provides a straightforward explanation of the fact that *SVAP*- does not have a *-ya-* Present in spite of its being an unaccusative achievement verb. Second, it suggests that the so-called root Present may be taken to have represented a productive pattern of stem formation in Early Vedic.

Table 2.5: Unaccusative Verbs and their Present/Aorist stem selection

VERB	PRESENT STEM	AORIST STEM
OC- ‘be pleased’	<i>úcya-</i> : <i>ucyasi</i> ‘you are pleased’	—
JAS- ‘get exhausted’	<i>jásya-</i> : <i>jasyata</i> ‘you shall get exhausted!’ ²⁰	<i>jas-</i> : <i>jásāmanam</i> ‘having gotten exhausted’
DAS- ‘waste away’	<i>dásya-</i> : <i>dásyati</i> ‘wastes away, is wasting away’	<i>dāṣiṣ-</i> : <i>dāṣīt</i> ‘[don’t] he waste away’
NAŚ- ‘perish, disappear’	<i>násya-</i> : <i>násyati</i> ‘perishes, is perishing’ ²¹	<i>neś-</i> : <i>neśat</i> ‘[don’t] he perish’ ²²
PAD- ‘fall’	<i>pády-</i> : <i>padyate</i> ‘falls, is falling’ ²³	<i>pad-</i> : <i>apadran</i> ‘they fell, have fallen’
POṢ- ‘flourish’	<i>púṣya-</i> : <i>púṣyati</i> ‘flourishes, is flourishing’	<i>puṣ-</i> : <i>puṣema</i> ‘may we flourish’ (?)
MAR- ‘die’	<i>mríya-</i> : <i>mriyase</i> ‘you die, you are dying’	<i>mar-/mr-</i> : <i>muriya</i> ‘may I die’
MOH- ‘be confused’	<i>múhya-</i> : <i>múhyantu</i> ‘they shall be confused’	—
REṢ- ‘become hurt’	<i>ríṣya-</i> : <i>riṣyati</i> ‘is hurt’	<i>reṣ-/riṣ-</i> : <i>reṣat</i> ‘he will be hurt’
ŚOṢ- ‘become dry’	<i>śúṣya-</i> : <i>śuṣyatu</i> ‘shall become dry’	<i>śuṣ-</i> : <i>śuṣānta-</i> ‘having become dry’
ŚRAM ^l - ‘be exhausted’	<i>śrāmya-</i> : <i>śrāmyanti</i> ‘they are exhausted’	<i>śramiṣ-</i> : <i>śramiṣma</i> ‘[don’t] we become exhausted’
SĀDH- ‘succeed’	<i>sídhya-</i> : <i>sídhyati</i> ‘succeeds, is succeeding’	—

²⁰ Note that the Imperative is attested only once with the compound *NÍ-JAS-* ‘to perish, die’ (RV I 191.7).

²¹ Cf. also the Imperative *naśya* ‘disappear, get lost!’ (RV X 97.13).

²² Hoffmann (1967: 64–65) suggests that this synchronically idiosyncratic Aorist stem has been created by analogy on the basis of the weak form of the Perfect stem. In the following, I assume that this stem is a lexically determined variant of the thematic Aorist.

²³ Cf. also the Imperative form *prápadyasva* ‘attack!’ (RV VI 75.16).

fallen' remains somewhat dubious, as both these morphological types apparently represent productive patterns at this stage and need not be indicative of a thematic or of an athematic root Aorist Stem (cf. Lazzeroni 1987 and Insler 1968). Cases like these illustrate some of the difficulties inherent in the present endeavour.

However, before continuing the main discussion, it should be briefly noted that a principled way of resolving issues like the ones at hand would consist of drawing on the morphosyntactic inventory of more or less synonymous verbs. For instance, alongside the verb *ŚRAM^I*- we find the semantically similar verb *JAS*- which has a thematic Aorist stem. In general, fully synonymous lexical items are rare in natural language and it is therefore tempting to suggest that *ŚRAM^I*- represents a state verb with the meaning 'be exhausted', whereas *JAS*- represents an achievement verb with the meaning 'get exhausted'. A similar point could be made with regard to the verb *SĀDH*- alongside which we find the semantically closely related verb *RĀDH*- 'succeed' which turns out to have a root Aorist stem.²⁴ By the same logic, *SĀDH*- might be taken to have the meaning 'be successful' thus representing a state verb whereas *RĀDH*- could be assumed to have the more specific meaning 'become successful' which would make it an achievement verb.

Turning now to unergative intransitive verbs, we may first note that the above definition of unergativity as intransitive verbs with an agent-like subject suggests that this class of verbs may be thought to comprise dynamic verbs like *CAR*- 'move' or *RAV*- 'bellow, cry' as well as non-dynamic verbs like *ĀS*- 'sit' or *JĪV*- 'live, be active'. There seems to be no unambiguous examples of unergative change of state verbs in Early Vedic, something which probably reflects the intuition that a participant undergoing a change of state is typically conceived of as a patient or experiencer rather than an agent. In Early Vedic, unergative verbs tend to select other types of Present stems than unaccusative verbs and to be less commonly associated with an Aorist stem, as illustrated by the data summarized in Table 2.6 below.

²⁴ Cf. the Indicative form *ārādhi* (RV I 70.8, X 53.2) and the Subjunctive forms *rādhati* (RV X 63.6), *rādhāt* (RV I 120.1) and *rādhāma* (RV VIII 70.13).

Table 2.6: Unergative verbs and their Present/Aorist stem selection

VERB	PRESENT STEM	AORIST STEM
AN ^I - ‘breathe’	<i>anⁱ-: aniti</i> ‘breathes, is breathing’	—
AY- ‘go’	<i>ay-/i-: eti</i> ‘goes, is going’	—
ARṢ- ‘flow’	<i>arṣa-: árṣati</i> ‘flows, is flowing’	—
ĀS- ‘sit’	<i>ās-: āste</i> ‘sits, is sitting’	—
ĪŚ- ‘be master’	<i>īś-: īṣṭe</i> ‘is master’	—
KṢAY ² - ‘live, dwell’	<i>kṣay-/kṣi-: kṣeti</i> ‘lives, is living’	<i>kṣeṣ-: kṣeṣat</i> ‘he shall live’
KṢAR- ‘flow’	<i>kṣar-: kṣáratī</i> ‘flows, is flowing’	<i>kṣārṣ-: akṣār</i> ‘flowed, has flowed’
CAR- ‘move’	<i>cara-: cárati</i> ‘moves, is moving’	<i>cāriṣ-: acāriṣam</i> ‘I moved, have moved’
JAV ^I - ‘hurry’	<i>java-: javete</i> ‘the two hurry, are hurrying’	—
JĪV- ‘live, be active’	<i>jīva-: jīvati</i> ‘lives, is living’	—
DRAV- ‘run’	<i>drava-: drávanti</i> ‘runs, is running’	—
DHAM ^I - ‘blow’	<i>dham-: dhámati</i> ‘blows, is blowing’	—
PLAV- ‘swim’	<i>plava-: plávate</i> ‘swims, is swimming’	—
BHĀ- ‘shine’	<i>bhā-: bhāti</i> ‘shines, is shining’	—
MAR- ‘be gracious’	<i>mṛḍa-: mṛḍá</i> ‘be gracious!’	—
RAV- ‘bellow, cry’	<i>ruva-: ruvāti</i> ‘bellows, is bellowing’	<i>rāviṣ-: arāvīt</i> ‘bellowed, has bellowed’
ROD- ‘cry, weep’	<i>rod-: rodanti</i> ‘they cry, are crying’	—
ŚAY ^I - ‘lie, recline’	<i>śay-/śi-: śeṣe</i> ‘you are lying’	<i>sāyiṣ-: asāyiṣṭhās</i> ‘you lay, have lain’
STOBH- ‘cheer, exult’	<i>stobha-: stobhati</i> ‘exults’	—
SVAR- ‘utter a sound, resound’	<i>svara-: sváranti</i> ‘they resound, are resounding’	<i>svārṣ-: asvār</i> ‘resounded, has resounded’

This table illustrates that unergative verbs may select a root Present stem (e.g. *AY*:- *áy-/i-*, *ĀS*:- *ās-*, *BHĀ*:- *bhā-*), a strong thematic Present stem (e.g. *KṢAR*:- *kṣāra-*, *CAR*:- *cāra-*, *ROD*:- *róda-*) or, in a few cases, a weak thematic Present stem (e.g. *MARD*:- *mṛdā-*, *RAV*:- *ruvā-*). The data summarized in Tables 2.5 and 2.6 indicate that the distinction between unaccusative and unergative verbs is grammatically relevant in Early Vedic as it contributes to determining the Present stem selection options of a given verb.

Some readers might find the classification of several of the verbs in Table 2.6 as unergative slightly problematic. For instance, it is not immediately clear that the subject argument of verbs like *ARṢ*-, *KṢAR*- ‘flow’ or *BHĀ*- ‘shine’ really qualifies as agent-like. Prototypical agents are typically volitional and hence control the outcome of the situation, but it is dubious whether the situations denoted by these and similar verbs really can be conceived of as controlled by the subject argument. Such objections notwithstanding, a case can be made for the claim that the situations denoted by the verbs *ARṢ*-, *KṢAR*- ‘flow’ or *BHĀ*- ‘shine’ are in fact conceptualized as being within the subject’s sphere of control, as second person Imperative forms of all these verbs are fairly well attested. Consider the following examples:

- (58) a. *árṣā* *ṇaḥ* *soma* *śám*
 flow-2SG.PRS.IMP we-GEN soma-VOC auspiciously
 gáve
 cow-DAT
 ‘O Soma, flow auspiciously for our kine!’²⁵ (RV IX 61.15a)
- b. *mádhor* *dhārām* *ánu* *kṣara*
 mead-GEN gush-ACC after flow-2SG.PRS.IMP
 ‘Flow towards the gush of mead!’²⁶ (RV IX 17.8a)
- c. *úṣo* *devi* *ámartiyā* *ví*
 Uṣas-VOC goddess-VOC immortal-VOC apart
 bhāhi
 shine-2SG.PRS.IMP
 ‘O Uṣas, immortal goddess, shine widely!’²⁷ (RV III 61.2a)

²⁵ Cf. Geldner (1951c: 43): ‘Fließe, o Soma, zum Heil für unsre Vieh!’

²⁶ Cf., however, Geldner (1951c: 22): ‘Laß der Strom des Süßen fließen!’

²⁷ Cf., Geldner (1951a: 408): ‘Göttin Uṣas erstrahle du, Unsterbliche[!]’

Recall from the discussion in Chapter One that the prototypical discourse function of directive clauses consists in adding properties to the To-Do List of a salient discourse referent, which in the case of second person Imperatives like *árṣā*, *kṣara* ‘flow’ and *bhāhi* ‘shines’ coincides with the Addressee.²⁸ The To-Do List of the Addressee may be hypothesized to be subject to a universal pragmatic constraint, namely that it precludes properties which are outside the Addressee’s own sphere of control. According to this analysis of the Early Vedic Imperative (which shall be somewhat revised later on), verbs like *ARṢ-*, *KṢAR-* ‘flow’ or *BHĀ-* ‘shine’ may be taken to be unergative rather than unaccusative. However, this only represents one of several arguments in favor of regarding these verbs as unergative. For instance, the fact that *ARṢ-* and *KṢAR-* ‘flow’ entail that the subject argument moves likewise suggests that they have an agent-like, although not necessarily highly, agentive subject.

We shall now proceed to a discussion of the Present stem selection of two- and three-place verbs. A sample of two-place verbs, that on the basis of their meaning may be reasonably assumed not to entail a change of state, is given in Table 2.7.

Table 2.7: Some two-place state, activity and semelfactive verbs and their Present/Aorist stem selection

VERB	PRESENT STEM	AORIST STEM
<i>AJ-</i> ‘drive’	<i>aja-</i> : <i>ájati</i> ‘drives, is driving’	—
<i>AD-</i> ‘eat’	<i>ad-</i> : <i>atti</i> ‘eats, is eating’	—
<i>AV^I-</i> ‘promote, support’	<i>ava-</i> : <i>ávati</i> ‘supports, is supporting’	<i>aviṣ-</i> : <i>āvīt</i> ‘supported, has supported’
<i>ĪD-</i> ‘implore, request’	<i>īd-</i> : <i>īṭte</i> ‘implores’	—
<i>ŪH-</i> ‘push’	<i>ūha-</i> : <i>úhati</i> ‘pushes, is pushing’	—
<i>DOH-</i> ‘milk’	<i>doh-/duh-</i> : <i>duhe</i> ‘milks, is milking’	<i>dhukṣ-</i> : <i>ádhuḥṣat</i> ‘milked, has milked’
<i>DVEṢ-</i> ‘hate’	<i>dveṣ-/dvizṣ-</i> : <i>dveṣti</i> ‘hates’	—

²⁸ A more thorough discussion of the semantics and pragmatics of third person Imperative forms is given below.

Table 2.7 (*cont.*)

VERB	PRESENT STEM	AORIST STEM
NAY ¹ - 'lead'	<i>naya-</i> : <i>náyati</i> 'leads, is leading'	<i>naiṣ-/neṣ-</i> : <i>aneṣata</i> 'led, has lead'
PAŚ- 'see, look at'	<i>paśya-</i> : <i>páśyati</i> 'looks at, is looking at'	—
PĀ- 'protect'	<i>pā-</i> : <i>pāti</i> 'protects, is protecting'	—
BRAV ¹ - 'say, speak'	<i>bravi-/brū-</i> : <i>bravīti</i> 'says, is saying'	—
BHAR- 'carry'	<i>bhara-</i> : <i>bhárati</i> 'carries, is carrying'	<i>bhārṣ-</i> : <i>abhār</i> 'carried, has carried'
MARJ- 'wipe'	<i>marj-/mrj-</i> : <i>mṛjanti</i> 'they wipe, are wiping'	<i>mṛkṣa-</i> : <i>amṛkṣāma</i> 'we wiped, have wiped'
MARŚ- 'touch, handle'	<i>mṛśa-</i> : <i>mṛśanti</i> 'they handle, are handling'	<i>mṛkṣa-</i> : <i>mṛkṣas</i> 'you handled, have handled'
REH- 'lick'	<i>reh-/rih-</i> : <i>rehi</i> 'licks, is licking'	—
VAY ¹ - 'seek, strive after'	<i>vay-/vi-</i> : <i>veti</i> 'seeks, is seeking'	—
VAS ¹ - 'wish, desire'	<i>vaś-/uś-</i> : <i>vaṣṭi</i> 'wishes'	—
VAS ² - 'wear'	<i>vas-</i> : <i>vaste</i> 'wears'	<i>vaśiṣ-</i> : <i>avaśiṣṭa</i> 'wore, has worn'
VEN- 'trace, follow'	<i>vena-</i> : <i>vénati</i> 'traces, is tracing'	—
STAV- 'praise, extol'	<i>stau-/stu-</i> : <i>stoṣi</i> 'you praise, are praising'	<i>stoṣ-</i> : <i>ástoṣi</i> 'I praised, have praised'
SPARŚ- 'touch, caress'	<i>sprśa-</i> : <i>sprśanti</i> 'they touch, are touching'	—
HAN- 'smite, strike'	<i>han-/ghn-</i> : <i>hánti</i> 'he strikes, is striking'	—
HAR ² - 'enjoy, be happy with'	<i>harya-</i> : <i>háyanti</i> 'they enjoy, are enjoying'	—

The data summarized in Table 2.7 indicate that two-place verbs underspecified with regard to the change of state feature select a Present stem formed with the suffix *-ya-* (e.g. *PAŚ-*: *páśya-*, *HAR²-*: *hárya-*) just like unaccusative verbs, whereas others select either a root Present stem (e.g. *AD-*: *ád-*, *DVEṢ-*: *dvéṣ-/dviṣ-*, *REH-*: *réh-/rih-*), a strong thematic Present stem (e.g. *AJ-*: *ája*, *NAY-*: *náya-*, *VEN-*: *véna-*), or, in a few cases, even a weak thematic Present stem (e.g. *MARŚ-*: *mṛśá-*, *SPARŚ-*: *spṛśá-*), just like unergative verbs. Note that all these classes of verbs are seldom attested with forms belonging to the Aorist paradigm.

On the basis of the previous discussion, one may distinguish several structurally different classes of two-place verbs not entailing a change of state, most notably two-place state verbs with an experiencer subject and two-place state, activity and semelfactive verbs with an agentive subject. It is tempting to suggest that the various stem selection patterns shown by the verbs in Table 2.7 somehow reflect underlying structural differences of this type. For example, the verbs *PAŚ-* ‘see, behold’ and *HAR²-* ‘enjoy’, which behave like unaccusative verbs with regard to Present stem selection, might be taken to represent two-place state verbs with an experiencer subject. On the other hand, *DVEṢ-* ‘hate’ and *VÁŚ-* ‘wish, desire’ may be regarded as state verbs with an agent-like subject argument, *ŪH-* ‘push’ and *MARJ-* ‘wipe’ as activity verbs and *REH-* ‘lick’ and *HAN-* ‘smite’ as semelfactive verbs.²⁹

Some readers might not find the claim that the subject argument of *PAŚ-* ‘see, behold’ is patient- or experiencer-like rather than agent-like immediately convincing, as the act of seeing is typically understood as a voluntary act where the subject has control over the situation. An objection along these lines would find some support in the fact that *PAŚ-* actually occurs in the second person Imperative, as illustrated by example (59a). This could therefore be a point where the lexical semantic analysis depends too heavily on morphological facts. Interestingly, however, various scholars have noted that the Imperfect form *apaśyam* ‘I saw’ often expresses that the speaker has acquired mystic knowledge by revelation (cf. e.g. Brown 1968: 206), as illustrated by example (59b).

- (59) a. *ayám* *asmi* *jaritaḥ* *páśya*
 this-NOM be-1SG.PRS singer-VOC see-2SG .PRS.IMP
 mā *ihá*
 me-ACC here
 ‘This is me, O Singer, see me here!’³⁰ (RV VIII 100.4a)

²⁹ Cf. García Ramon (1998) for a discussion of the aspectual semantics of *HAN-*.

³⁰ Cf. Geldner (1951b: 428): ‘Da bin ich, o Sänger, sieh mich hier!’

- b. *ápaśyam* átra mánasā jaganvân
 see-1SG.IPF there mind-INS go-PRF.PTC.NOM
vraté gandharvām āpi vāyúkeśān //
 rule-LOC Gandharvas-ACC also wind.haired-ACC
 ‘Having gone there with my mind, I have beheld also the
 Gandharva’s, whose hair consists of the wind, under (your)
 command.’³¹ (RV III 38.6cd after Klein 1985b: 211)

The latter use of the verb *PAŚ-* indicates that it did not strictly entail that the subject controls the situation and it is therefore reasonable to assume that it has properties typical of patients or experiencers rather than agents, and that it is also compatible with an agent-like interpretation. Note that Early Vedic has several other verbs with a similar meaning, e.g. *ĪKṢ-* ‘see, look’, *KHYĀ-* ‘see, behold’, *CAKṢ-* ‘appear, see’ and, most importantly, *DARŚ-* ‘see, behold’ with which *PAŚ-* apparently forms a synchronic suppletive paradigm, which will be discussed in somewhat more detail later on. Further, it is significant that *ĪKṢ-* is associated with the thematic Present stem *īkṣa-*, whereas *CAKṢ-* is associated with the root Present stem *cakṣ-*, something which may be taken as an indication that they, unlike *PAŚ-*, lexically entail that the subject argument is agent-like rather than patient- or experiencer-like. This suggestion clearly remains stipulative and requires further clarification.

If it is correct that the subject argument of *PAŚ-* ‘see, behold’ has the status of an experiencer rather than an agent, we seem to run into another set of difficulties. Examples like (59a) indicate that second person Imperative forms do not presuppose that the verb is associated with this entailment. Our main argument for claiming that *ARṢ-*, *KṢAR-* ‘flow’ and *BHĀ-* ‘shine’ are unergative rather than unaccusative thus turns out to be significantly weaker than previously supposed. The fact that these verbs are compatible with Imperative forms merely indicates that they are compatible with the implication that the subject controls the situation, not that they strictly entail a volitional subject.

It has already been suggested that verbs like *ARṢ-* ‘flow’ and *KṢAR-* ‘flow’ are associated with other entailments that support the assumption that they are unergative, but what about *BHĀ-* ‘shine’ and similar state verbs? So far, the only formal evidence for regarding this class of verbs as unergative rather than unaccusative is that it does not select a Present stem formed with the suffix *-ya-*, which is tautological.

³¹ Cf. Geldner (1951a: 380): ‘Ich sah, im Geiste dorthin gegangen, auch die Gandharven, deren Haare der Wind ist, in (eurem) Dienste.’

The model developed so far provides a way of solving this problem. Recall that the lexical entailments constituting the notion of a prototypical agent are taken to be privative. An argument is either positively characterized as volitional, sentient, moving, instigating and persistent through the situation or underspecified with regard to, and in principle compatible with one or more of these features. The subject argument of unaccusative verbs and experiencer subject verbs more generally is taken to at least lack the volitionality feature, but note that this assumption allows both these classes of verbs to have a subject argument lacking more of the agentivity features. The subject of one-place state verbs like *SĀDH-* ‘be successful’ and *BHĀ-* ‘shine’ appears to be underspecified with regard to volition, sentience, motion and instigation and it is tempting to suggest that state verbs more generally come with a radically underspecified subject argument. Given that these two classes of verbs are associated with the same set of grammatically relevant lexical entailments, their difference in behavior may be taken to reflect idiosyncratic semantic differences associated with their respective roots. More specifically, the situations denoted by state verbs like *MOH-* ‘be confused’, *ŚRAM-* ‘be exhausted’ or *SĀDH-* ‘be successful’ may be understood as contingent on some external factor that does not represent a proper argument of the verb but which can still be expressed in the syntax by a noun phrase in the locative case or by a prepositional/postpositional phrase, as illustrated by the following examples:

- (60) a. *mā* *yuṣmāvatsu* *āpiṣu* *śramiṣma* //
 don’t like.you-LOC friends-LOC be.exhausted-1PL.AOR.INJ
 ‘Don’t we get exhausted with friends like you!’³² (RV II 29.4d)
- b. *yāsmād* *ṛté* *nā* *sídhyati*
 who-ABL without not be.successful-3SG.PRS
 yajñō *vipaścítaś* *caná* /
 sacrifice-NOM wise-GEN not.even
 ‘Without whom a sacrifice is not successful, not even that of a
 wise man’³³ (RV I 18.7ab)

³² Cf. Geldner (1951a: 312): ‘Nicht wollen wir der Freunde, wie ihr seid, müde werden.’ Hoffmann (1967: 49) translates as follows: ‘Laß uns nicht bei Freunden, wie ihr seid, in Erschöpfung geraten.’ Cf. also Witzel and Gotō (2007: 399): ‘Verhüte, daß wir der Freunde, wie ihr (es seid), ermüden.’

³³ Cf. Geldner (1951a: 18): ‘Ohne den die Anbetung selbst des Redekundigen nicht gelingt;’ Witzel and Gotō (2007: 35) translate the passage as follows: ‘Ohne welchen nicht gelingt das Opfer selbst dessen, der sich auf die (dichterische) Erregung versteht.’

It is reasonable to assume that this additional entailment, although it probably does not qualify as a grammatically relevant semantic feature in a strict sense, distinguishes the state verbs which select a Present stem formed by the suffix *-ya-* from other types of state verbs, which typically select a root Present stem or a thematic Present stem. Most notably, an idiosyncratic lexical entailment of this kind might be hypothesized to preclude the possibility of ascribing volitionality and instigation to the subject argument, which we suppose to be inherent in the vague semantic specification of state verbs. In other words, emphatically unaccusative state verbs may be taken to be associated with the entailment that the outcome of the situation does not depend on the subject argument alone but is contingent on some additional factor. Two-place experiencer state verbs, on the other hand, may be assumed to have essentially the same semantics.

The data summarized in Table 2.7 show that two-place state, activity and semelfactive verbs tend to select a root Present stem, a strong thematic Present stem or a weak thematic Present stem. Two-place change of state verbs, on the other hand, are associated with a far broader range of Present stem formations, as illustrated by the data summarized in Table 2.8.

Table 2.8: Some change of state verbs and their Present stem in Early Vedic

VERB	PRESENT	AORIST
AS- 'throw'	<i>asya-</i> : <i>asyati</i> 'throws, is throwing'	<i>as-</i> : <i>asan</i> 'they throw'
KAR- 'do, make'	<i>kṛṇo-</i> / <i>kṛṇu-</i> : <i>kṛṇoti</i> 'makes, is making'	<i>kar-/kr-</i> : <i>akar</i> 'made, has made'
GRABH- 'seize, take'	<i>gr̥bhñā-</i> / <i>gr̥bhñī-</i> : <i>gr̥bhñāti</i> 'takes, is taking'	<i>grabh-/grbh-</i> : <i>agr̥bhṛan</i> 'they took, have taken'
CAY- 'gather'	<i>cino-</i> / <i>cinu-</i> : <i>cinóti</i> 'gathers, is gathering'	<i>cet-/cit-</i> : <i>áčet</i> 'gathered, has gathered'
DĀ- 'give'	<i>dadā-</i> / <i>dad-</i> : <i>dadāti</i> 'gives, is giving'	<i>dā-/dī-</i> : <i>adāt</i> 'gave, has given'
DHĀ- 'place, put'	<i>dadhā-</i> / <i>dadh-</i> : <i>dádhāti</i> 'places, is placing'	<i>dhā-/dhī-</i> : <i>ádghāt</i> 'placed, has placed'
BHAJ- 'divide, grant'	<i>bhaja-</i> : <i>bhájati</i> 'grants, is granting'	<i>bhaj-</i> : <i>abhakta</i> 'he granted, has granted himself'

Table 2.8 (*cont.*)

VERB	PRESENT	AORIST
<i>BHAV</i> ¹ - ‘become’	<i>bhava</i> -: <i>bhávati</i> ‘becomes, is becoming’	<i>bhū</i> -: <i>ábhūt</i> ‘became, has become’
<i>BHED</i> - ‘split’	<i>bhinad</i> -/ <i>bhind</i> -: <i>bhinatti</i> ‘splits, is splitting’	<i>bhed</i> -/ <i>bhid</i> -: <i>abhed</i> ‘split, has split’
<i>MAN</i> ¹ - realize, think’	<i>manya</i> -: <i>manyate</i> ‘he thinks, is thinking’	<i>man</i> -/ <i>ma</i> -: <i>ámata</i> ‘he thought, has thought’
<i>MOC</i> - ‘release’	<i>muñca</i> -: <i>muñcāmi</i> ‘I release, am releasing’	<i>moc</i> -/ <i>muc</i> -: <i>amugdhvam</i> ‘you released, have released’ <i>muca</i> -: <i>ámucat</i> ‘released, has released’
<i>YOJ</i> - ‘yoke’	<i>yunaj</i> -/ <i>yuñj</i> -: <i>yunajmi</i> ‘I yoke, am yoking’	<i>yoj</i> -/ <i>yuj</i> -: <i>ayukta</i> ‘yoked, has yoked’
<i>VAR</i> ¹ - ‘choose’	<i>vṛṇā</i> -/ <i>vṛṇī</i> -: <i>vṛṇīte</i> ‘chooses, is choosing’	<i>var</i> -/ <i>vr</i> -: <i>avri</i> ‘I chose, have chosen’
<i>VEŚ</i> - ‘enter’	<i>viśa</i> -: <i>viśanti</i> ‘they enter, are entering’	<i>veś</i> -/ <i>viś</i> -: <i>aviśran</i> ‘they entered, have entered’
<i>SARJ</i> - ‘let loose’	<i>srja</i> -: <i>srjáti</i> ‘lets loose, is letting loose’	<i>sarj</i> -/ <i>srj</i> -: <i>ásrgran</i> ‘they let loose, have let loose’
<i>SEC</i> - ‘pour out’	<i>siñca</i> -: <i>siñcānti</i> ‘they pour out, are pouring out’	<i>sicá</i> -: <i>asican</i> ‘they poured out, have poured out’

In fact, verbs belonging to this class prove to be compatible with any Present stem type except for the root Present. One might therefore be tempted to suggest that the root Aorist directly reflects the change of state feature, whereas the root Present entails that the verb does not predicate a change of state. However, this generalization raises at least one obvious empirical problem, namely the fact that while the ingestion verb *AD*- ‘eat’ has a root Present (*átti*), as noted in Table 2.7, and no Aorist, the semantically very similar ingestion verb *PĀ*- ‘drink’ has a reduplicated Present (*píbatī*) and, somewhat surprisingly,

a root Aorist (*ápāt*). One way of solving this dilemma would be to assume that *PĀ*- entails that the object argument undergoes a change of state, whereas *AD*- does not. Apart from the fact that this solution is obviously ad hoc, it finds little or no independent formal support. For instance, *AD*- and *PĀ*- show exactly the same range of object realization options, an area of morphosyntax which might be expected to be particularly sensitive to this specific semantic difference. Consider for instance the examples in (61).

- (61) a. *svadhām* *pīpāya* *subhv*
 libation-ACC swell-3SG.PRF strenghtening-ACC
ánnam *atti* /
 food-ACC eat-3SG.PRS
 ‘He has swollen with libation, he is eating strenghtening food’³⁴
 (RV II 35.7b)
- b. *ná* *sá* *rājā* *vyathate* *yásmin*
 not the-NOM king-NOM fail-3SG.PRS who-LOC
índras
 Indra-NOM
tīvrām *sómam* *píbati* *gósakhāyam* /
 strong-ACC soma-ACC drink-3SG.PRS mixed.with.milk-ACC
 ‘Not does any king fail, at whose place Indra drinks strong
 soma mixed with milk’³⁵ (RV V 37.4ab)
- c. *ádriṇā* *te* *mandína* *indra*
 stone-INS you-DAT intoxicating-ACC Indra-VOC
túyān
 strong-ACC
sunvānti *sómān* *píbasi*
 extract-3PL.PRS soma.juices-ACC drink-2SG.PRS
tvám *eṣām* /
 you-NOM them-GEN
pácanti *te* *vṛṣabhām* *átsi* *téṣām*
 cook-3PL.PRS you-DAT bulls-ACC eat-2SG.PRS them-GEN

³⁴ Cf., however, Geldner (1951a: 322): ‘die schwellt seine Lebenskraft; er ißt die gut-bekömmliche Nahrung.’ The present translation is more in line with Kümmel (2000: 299): ‘[der] strotzt von Trankspende, gutes Essen ißt er.’

³⁵ Cf. Geldner (1951b: 37): ‘Der König kommt nicht zu Fall, bei welchem Indra den scharfen milchgesellten Soma trinkt.’

‘O Indra, with the pressing stone they extract strong intoxicating soma juices for you, you drink of them, they cook bulls for you, you eat of them’³⁶ (RV X 28.3bc)

- d. *tasthaú māṭā víṣito atti*
 stand -3SG.PRF mother-NOM let.loose-NOM eat-3SG.PRS
gárbhaḥ /
 child-NOM
 ‘The mother has stood (up), having been released the child is eating’³⁷ (RV X 27.14b)

- e. *prātaryāvāṇā prathamā yajadhvam*
 going.out.at.daybreak-ACC first-ACC sacrifice-2PL.PRS.IMP
purā gr̥dhrād áraruṣaḥ pibātaḥ /
 before vulture-ABL envious-ABL drink-3DU.PRS.SBJ
prātár hí yajñám ásvínā dadhāte
 at.daybreak for sacrifice-ACC Ásvins-NOM receive-3DU.PRS
 ‘Sacrifice first to the two who are going out at daybreak! They shall drink before any envious vulture, for the Ásvins receive their sacrifice in the morning’³⁸ (RV V 77.1ab)

These examples illustrate that *AD-* and *PĀ-* have exactly the same range of object realization options. Specifically, they may both take an object argument in the accusative (61ab), in the genitive (61c) or simply leave their object argument unexpressed (61de). If it is correct that *PĀ-* entails a change of state in the object argument whereas *AD-* does not, one would expect these two verbs to diverge somewhat with regard to how their respective object argument can be expressed in the syntax.

Another piece of potentially problematic evidence against the assumption that *AD-* and *PĀ-* differ with regard to the entailment that the object argument undergoes a change of state concerns their co-occurrence with verbal particles, particularly those which can be

³⁶ Cf., however, Geldner (1951c: 171–172): ‘Mit dem Steine pressen sie dir, Indra, schleunig die berausenden Somasäfte aus; du trinkst davon. Sie kochen dir Stiere, du isset davon.’ The present translation follows Elizarenkova (1999: 149) ‘Давильным камнем выжимают тебе, о Индра, опьяняющие, крепкие соки сомы—ты пьешь их, тебе готовят быков—ты ешь их.’

³⁷ Cf. Geldner (1951c: 167): ‘Die Mutter steht still, entbunden frisst das Kind.’

³⁸ Cf. Geldner (1951b: 82): ‘Opfert den frühkommenden Zuerst; sie sollen vor dem mißgünstigen Geier trinken, denn am Morgen empfangen die Ásvin ihr Opfer.’

used in verbal composition. There are about twenty verbal particles of this type in Early Vedic that usually have a locative meaning. Cross-linguistically, an important function of verbal particles of this type consists in deriving a verb complex denoting a temporally bounded situation from verbs denoting a temporally unbounded situation, something which within the present framework amounts to adding the change of state feature. However, verbal particles may also have other semantic effects. With ingestion verbs, verbal particles of this kind typically involve a modification of the relationship between the situation and the object argument, as may be illustrated by the difference between *eat*, *eat up* and *eat at*. On the assumption that *PĀ-* entails that the object undergoes a change of state and *AD-* does not, one might therefore expect the latter verb to be compatible with a broader range of verbal particles than the former, which is semantically more specific. Somewhat surprisingly, however, the Early Vedic data turn out to show exactly the opposite distribution. Whereas *AD-* is only attested with the particles *VÍ-* ‘apart’ and *SÁM-* ‘together’, *PĀ-* is attested with both these particles as well as *Ā-* ‘at’ and *PRĀ-* ‘forth’, as illustrated by the following examples:

- (62) a. *mūṣo ná śíśnā vy àdanti mā*
 mice-NOM as tails-ACC apart eat-3PL.PRS me-ACC
ādhya
 worries-NOM
 ‘As mice at their tails, the worries are eating away at me’³⁹ (RV I 105.8c)
- b. *bhūri cid ānnā sám íd atti*
 much-ACC even food-ACC together indeed eat-3SG.PRS
sadyáh //
 at.once
 ‘Indeed, he even eats up much food at once’⁴⁰ (RV VII 4.2d)
- c. *ā tú na indra kauśika*
 at now we-GEN Indra-VOC Kauśika-VOC
mandasānāḥ *sutám*
 inebriate.one’s.self-PRS.PRT.NOM juice-ACC

³⁹ Cf. Geldner (1951a: 137): ‘Wie die Ratten an ihren Schwänzen, so nagen die Sorgen an mir’.

⁴⁰ Cf. Geldner (1951b: 184): ‘Gar viele Speisen ißt er auf in kurzer Frist.’

piba /

drink-2SG.PRS.IMP

‘O Indra Kauśika, sip on our soma now, letting yourself be inebriated’⁴¹ (RV I 10.11ab)

- d. *yát tvā deva prapíbanti*
 when you-ACC god-VOC drink.forth-3PL.PRS
táta á pyāyase púnah /
 then become.full-2SG.PRS again
 ‘O God, when they drink you up, then you become abundant again’⁴² (RV X 85.5ab)

- e. *devébhir viprā ṛṣayo nṛcakṣaso*
 gods-INS wise-VOC Ṛṣis-VOC guiding.men-VOC
ví pibadhvaṃ kuśikāḥ
 apart drink-2PL.PRS.IMP Kuśikas-VOC
somyám mādhu //
 belonging.to.soma ACC mead-ACC
 ‘O wise Ṛṣis, guides of men, O Kuśikas, drink up the soma mead together with the gods’⁴³ (RV III 53.10cd)

- f. *yásmin vṛkṣé supalāśé*
 which-LOC tree-LOC having.beautiful.leaves-LOC
devaiḥ sampíbate yamāḥ /
 gods-INS drink.together-3SG.PRS Yama-NOM
 ‘By the three with beautiful leaves where Yama carouses with the gods’⁴⁴ (RV X 135.1ab)

These examples illustrate the various attested constellations of *AD*- and *PĀ*- with different verbal particles. As each of the constellations is rather scarcely attested, one should be careful about drawing a definite conclusion about the function or functions of preverbs in Early Vedic on the basis of the above data. Yet, the proposed translations illustrate that particles of this type often appear to modify the relationship between the situation and the direct object, although the verbal com-

⁴¹ Cf. Geldner (1951a: 11): ‘Trink doch, Indra, Gott des Kuśika, unseren Soma, dich berauschend!’

⁴² Cf. Geldner (1951c: 268): ‘Wann sie dich auftrinken, o Gott, so füllst du dich darauf wieder.’

⁴³ Cf. Geldner (1951a: 394): ‘Mit den Göttern zusammen trinket, ihr beredten Ṛṣi’s mit dem Herrscherauge, ihr Kuśika’s den somischen Süßtrank aus!’

⁴⁴ Cf. Geldner (1951c: 368): ‘Wo unter einem schönbelauten Baume Yama mit den Göttern zecht.’

Another structurally similar problem with the generalization given above concerns the verb *ŠRAV-* ‘hear, listen’ which has a root Aorist stem (e.g. *aśrot* ‘listen, has listened’), even though it is dubious whether it entails a change of state in the direct object. Interestingly, it shows exactly the same range of object realization options as the ingestion verbs discussed previously. Consider for instance the following examples:

- (63) a. *śrudhí* bráhma
listen-2SG.AOR.IMP invocation-ACC
vāvr̥dhásvotá īrbhīḥ /
become.strong-2SG.IMP and pious.songs-INS
'Listen to the invocation and grow stronger by the pious
songs!'⁴⁶ (RV VI 17.3ab)
- b. *sá* *tú* *śrudhi* ~ *indra*
he-NOM PTC listen-2SG.AOR.IMP Indra-VOC
nū́tanasya
of.now-GEN
brahmaṇyató *vīra*
be.devout-PRS.PRT.GEN hero-VOC
kārudhāyaḥ /
supporter.of.the.singer-VOC
'Indra, listen now to the present devotee, O hero, supporter of
the singer!'⁴⁷ (RV VI 21.8ab)
- c. *śrudhí* śrutkarṇa
listen-2SG.AOR.IMP who.has.hearing.ears-VOC
vāhnibhir
borne.along-INS
devair *agne* *sayávabhīḥ* /

⁴⁵ Cf. *sám pibasva* (RV IV 35.7) and *sám pibadhvam* (RV IV 35.9, VII 37.2).

⁴⁶ Cf. Geldner (1951b: 113): 'Höre die feierliche Rede und erbaue dich an den Lobesworten!'

⁴⁷ Cf. Geldner (1951b: 120): 'So höre doch, Indra, auf den jüngsten Segenssprecher, du Held, der du die Dichter ernährst.'

gods-INS Agni-VOC going.along-INS
 ‘O Agni, you who are eager to hear, listen together with the gods
 who are borne along, your companions’⁴⁸ (RV I 44.13ab)

Intuitively, perception verbs like *ŚRAV-* do not entail any change of state in the object argument. To the extent that verbs of this type entail a change of state, it affects the experiencer subject argument rather than the object argument.

We may now briefly return to the question about the semantic difference between the ingestion verbs *AD-* ‘eat’ and *PĀ-* ‘drink’. Although it was argued that neither of these verbs entails a change of state in the object argument, a case could be made for the claim that *PĀ-*, unlike *AD-*, involves a change of state in the *subject* argument, just like *ŚRAV-*. Specifically, given the beverages we usually encounter in Vedic India, it is likely that the act of drinking was strongly associated with getting inebriated, thus implying that the subject argument went from a state of being sober to the state of being drunk.⁴⁹ In general then, the root Aorist stem is restricted to achievement and accomplishment verbs, whereas the root Present stem is found with state, semelfactive and activity verbs only. A root Aorist thus unambiguously indicates that the verb entails a change of state in the subject or object, whereas a root Present unambiguously indicates that the verb lacks this entailment.

Although the previous discussion might be taken to indicate that all verb classes have a Present stem in Early Vedic, a limited group of verbs are not associated with any of the regular Present stem types. In these cases, the functions normally associated with the Present system are conveyed by the forms belonging to the Perfect stem. Table 2.9 contains a sample of verbs belonging to this group and their Aorist stem selection.

Although one may have one’s doubts about the aspectual semantics of some of the verbs listed in Table 2.9, half of them may be reasonably

⁴⁸ Cf. Geldner (1951a: 55): ‘Höre hörenden Ohres mit den zu Wagen fahrenden Göttern, den Mitkommenden, o Agni!’

⁴⁹ Note, however, that an analysis along these lines appears to be difficult in the following example:

addhi	tṛṇam	aghniye	viśvadānim
eat-2SG.PRS.IMP	grass-ACC	cow-VOC	always
pība	śuddhām	udakām	ācāranti //
drink-2SG.PRS.IMP	pure-ACC	water-ACC	approach-PRS:PRT.NOM

‘O cow, always eat grass! Drink pure water, coming hither!’ (RV I 164.40cd)
 In this case, it is highly dubious whether the subject (a cow) is invited to inebriate itself by ingesting the object (pure water) and hence one might be tempted to assume that the verb had the lexical entry ‘satisfy oneself by drinking x’ rather than ‘inebriating oneself by drinking x’.

regarded as achievements, as they have a root or thematic Aorist stem, notably *ĀP*- ‘get, obtain’, *GARDH*- ‘become greedy’, *JOṢ*- ‘become pleased’, *TVEṢ*- ‘become stirred’ and *DARŚ*- ‘catch sight of’.⁵⁰

Table 2.9: Verbs with no Present Stem in Early Vedic

VERB	PERFECT STEM	AORIST STEM
<i>ĀP</i> - ‘get, obtain’	<i>āp</i> -: <i>āpa</i> ‘has got, has’	<i>āpa</i> -: <i>āpan</i> ‘they obtained, have obtained’
<i>KAN</i> ^l - ‘become pleased’	<i>cākan</i> -: <i>cākana</i> ‘I am pleased’	<i>kāniṣ</i> -: <i>akāniṣam</i> ‘was pleased, have become pleased’
<i>GARDH</i> - ‘become greedy’	<i>jāgrdh</i> -: <i>jāgrdhur</i> ‘they are greedy’	<i>grdh</i> -: <i>āgrdhāt</i> ‘became greedy, have become greedy’
<i>CAY</i> ^l - ‘notice, observe’	<i>cikāy</i> -: <i>cikāya</i> ‘observes, is observing’	—
<i>JAR</i> ^l - ‘awake’	<i>jāgar</i> -: <i>jāgāra</i> ‘is awake’	—
<i>JOṢ</i> - ‘become pleased’	<i>jujoṣ</i> -: <i>jujoṣa</i> ‘enjoys’	<i>joṣ</i> -: <i>ajuṣran</i> ‘they became pleased, have become pleased’
<i>TVEṢ</i> - ‘become stirred’	<i>titviṣ</i> -: <i>titviṣe</i> ‘is stirred’	<i>tviṣa</i> -: <i>atviṣur</i> ‘became stirred, have become stirred’
<i>DAY</i> ^l - ‘begin to shine’	<i>dīdāy</i> -: <i>dīdāya</i> ‘shines, is shining’	—
<i>DARŚ</i> - ‘catch sight of’	<i>dadarś</i> -: <i>dadarśa</i> ‘has seen’	<i>dṛś</i> -: <i>adṛśran</i> ‘they became visible, have become visible’
<i>DHAY</i> ¹² - ‘find out’	<i>dīdhay</i> -: <i>dīdhaya</i> ‘I think, am thinking’	—
<i>ŚAD</i> - ‘get courage’	<i>śāśad</i> -: <i>śāśadur</i> ‘they have courage’	—

⁵⁰ Note that the only evidence that this verb had a root Aorist stem is constituted by the third plural Imperative form *drāntu* (RV X 85.32) which could equally well represent a root Present stem. However, various scholars have noted that this verb seems to form a suppletive paradigm with the more or less synonymous verb *DRAV*- ‘run’ which has a Present stem, but apparently no Perfect or Aorist (cf. e.g. Narten 1964: 149–150, Gotō 1987: 178, Kümmel 2000: 252–254).

It is tempting to generalize this observation and conclude that verbs selecting a stative present Perfect stem instead of one of the regular types of Present stems have the aspectual properties characteristic of achievement verbs. Although some of the verbs listed in Table 2.9, notably *KAN^I*- 'become pleased', *CAY^I*- 'notice, observe', *JAR^I*- 'awake', *DAY^I*- 'begin to shine', *DHAY^{I2}*- 'find out' and *ŚAD-* 'get courage', do not furnish conclusive evidence in favor of this conclusion, there appears to be no compelling reason not to regard them as achievements, as the situations they denote could well be conceptualized as the entry into a state of the type implied by the verb.

If it is correct that verbs of like those listed in Table 2.9 have the basic lexical semantic properties characteristic of achievements, it remains unclear why they do not pattern with other achievement verbs which have similar lexical semantic properties and still select a regular Present stem (e.g. *BHAY^I*- 'become afraid': *bháya-*, *BHAV^I*- 'become': *bháva-*, *MAN^I*- 'realize, think': *mánya-*). One way of accounting for this discrepancy would be to assume that verbs selecting a stative present Perfect stem instead of a regular Present stem represent instantaneous achievements with a basically inchoative meaning. Recall from the discussion in Chapter One that instantaneous achievements represent a situation as strictly punctual and as consisting of a change of state, an aspectual specification which among other things precludes the possibility of focusing any part of the preliminary state or process. The tendency of certain verbs to eschew forms belonging to the Present system could therefore be taken to indicate that the Early Vedic Present Stem minimally presupposes that the lexical semantic specification of the verb provides an internal or a preliminary interval that can be focused. This would seem to imply that the Present Paradigm is strongly associated with a progressive-processual interpretation, a point which will be discussed further in Chapter Three below. In any case, the fact that instantaneous achievement predicates tend to select a Perfect Stem with a stative present value instead of a regular Present Stem could be taken as an indication that the punctuality feature is grammatically relevant in Early Vedic.

Throughout the previous discussion it has been noted in passing that Aorist forms of state, activity and semelfactive verbs are less common than the corresponding forms of change of achievement and accomplishment verbs. It should be remembered, however, that Aorist forms of activity verbs are somewhat more numerous than Aorist forms of semelfactive and state verbs. Interestingly, a similar point could be

made with regard to Perfect forms, as state verbs, unlike activity and semelfactive verbs, tend not to have a Perfect stem in Early Vedic (cf. Di Giovine 1990, 1996a, 1996b). Tables 2.10 and 2.11 show how Aorist and Perfect forms are distributed with a sample of activity/semelfactive and state verbs, respectively.

As regards the data in Table 2.10, we may first note that eighteen out of twenty-four verbs are attested with either an Aorist or a Perfect stem or both, whereas only six verbs lack both these stem types, namely *AD-* 'eat', *DRAV-* 'run', *BRAV^I-* 'say, speak', *AJ-* 'drive', *TRAS-* 'tremble, quiver' and *PLAV-* 'swim'. The first three verbs appear to have formed suppletive paradigms with the more or less synonymous verbs *GHAS-* 'eat, consume', *DRĀ-* 'start running' and *VAC-* 'say', respectively, that furnish a set of Perfect and/or Aorist forms with appropriate semantic properties (cf. e.g. Hoffmann 1982: 67, Kümmel 2000: 116, 444 and Casaretto 2002, 2006). Moreover, the verb *HAN-* 'strike', which has a Perfect stem but no Aorist stem, is well known to form a suppletive paradigm with the verb *VADH-* 'strike, kill' which has an Aorist stem, but no Present or Perfect stem in Early Vedic. It is tempting to suggest that a similar relation holds between *TRAS-* 'shiver, be afraid' and *BHAY^I-* 'become afraid', but at present this suggestion remains stipulative.

Within the framework adhered to in this work, it is tempting to analyze suppletive paradigms in terms of lexical blocking, where a semantically specific verb blocks a quasi-synonymous verb with a more general meaning from certain positions. This suggestion would imply that minimal pairs like *AD-* 'eat'/'*GHAS-* 'eat, consume', *TRAS-* 'shiver, be afraid'/'*BHAY^I-* 'become afraid', *DRAV-* 'run'/'*DRĀ-* 'start running', *BRAV^I-* 'say, speak'/'*VAC-* 'say', *PAŚ-* 'see'/'*DARŚ-* 'catch sight of', *SAS-* 'sleep'/'*SVAP-* 'fall asleep' and *HAN-* 'strike'/'*VADH-* 'strike, kill' differ with regard to some semantic feature which blocks the first members from the Aorist and/or Perfect. The alternative, that some semantic feature blocks the second member from the Present system, is less plausible. Given that virtually all classes of verbs except a limited number of instantaneous achievement verbs have a Present stem in Early Vedic, this assumption would seem to presuppose that the verbs *GHAS-* 'eat, consume', *DRĀ-* 'start running', *VAC-* 'say', *DARŚ-* 'catch sight of', *SVAP-* 'fall asleep', *VADH-* 'strike, kill' all represent instantaneous achievements. It is far from obvious, however, that the situations denoted by *GHAS-* 'eat, consume' or *VAC-* 'say' can be plausibly assumed to be conceptualized as punctual in a strict sense, something

Table 2.10: Some activity and semelfactive verbs and their morphological inventory

VERB	AORIST	PERFECT
AJ- ‘drive’	—	—
AD- ‘eat’	—	—
AY- ‘go’	—	<i>iyay-</i> : <i>iyāya</i> ‘he has gone’
AV ^l - ‘help, promote’	<i>aviṣ-</i> : <i>āvīt</i> ‘supported, has supported’	<i>āv-</i> : <i>āvitha</i> ‘you have helped’
ĪD- ‘praise’	—	<i>īḍ-</i> : <i>īḍé</i> ‘has praised’ ⁴⁷
KRAP ^l - ‘lament’	<i>krapiṣ-</i> : <i>akrapīṣta</i> ‘he lamented, has lamented’	— ⁴⁸
KRAM ^l - ‘stride’	<i>kramiṣ-</i> : <i>ákramīt</i> ‘strode, has stridden’	<i>cakram-</i> : <i>cakrāma</i> ‘has stridden’
CAR- ‘move’	<i>cāriṣ-</i> : <i>acāriṣam</i> ‘I moved, have moved’	—
TRAS- ‘shiver, be afraid’	—	—
DOH- ‘milk’	<i>dhuḥṣ-</i> : <i>adhukṣata</i> ‘they milked, have milked’	<i>duduh-</i> : <i>duduhur</i> ‘they have milked’
DRAV- ‘run’	—	—
NAY ^l - ‘lead’	<i>neṣ-</i> : <i>aneṣata</i> ‘they lead, have lead’	<i>ninay-</i> : <i>nināya</i> ‘has lead’
NART- ‘dance’	<i>nartiṣ-</i> : <i>anartiṣur</i> ‘they danced, have danced’	— ⁴⁹
NED-/NIND- ‘scold, revile’	<i>nindiṣ-</i> : <i>anindiṣur</i> ‘they scolded, have scolded’	<i>ninid-</i> : <i>ninidúr</i> ‘they have scolded’
PLAV- ‘swim’	—	—
BRAV ^l - ‘say, speak’	—	—
BHAR- ‘bear, carry’	<i>bhārṣ-</i> : <i>abhār</i> ‘carried, has carried’	<i>jabhar-</i> : <i>jabhāra</i> ‘has carried’
MARJ- ‘wipe’	<i>mṛkṣa-</i> : <i>amṛkṣanta</i> ‘they have wiped’	<i>māmṛj-</i> : <i>māmṛje</i> ‘has wiped’
YODH- ‘fight’	<i>yodhiṣ-</i> : <i>áyodhīt</i> ‘fought, has fought’	<i>yuyodh-</i> : <i>yuyódha</i> ‘has fought’

⁴⁷ Cf. Kümmel (2000: 122).⁴⁸ Cf., however, Kümmel (2000: 146) on the status of the Injunctive form *caḥpanta* (RV IV 1.14).⁴⁹ Cf., however, the form *nṛtur* (RV V 52.12) which Hoffmann (1967: 219) takes as a variant of **nanṛtur* and Kümmel (2000: 282) takes as a root Aorist Injunctive.

Table 2.10 (*cont.*)

VERB	AORIST	PERFECT
REP-/LEP- ‘smear’	<i>lips-</i> : <i>alipsata</i> ‘they smeared, have smeared’	<i>ririp-</i> : <i>riripur</i> ‘they have smeared’
VAD ^l - ‘speak, utter’	<i>vādiṣ-</i> : <i>avādiṣur</i> ‘they spoke, have spoken’	<i>ūd-</i> : <i>ūdima</i> ‘we have spoken’
VARṢ- ‘rain’	<i>varṣiṣ-</i> : <i>avarṣīt</i> ‘rained, has rained’	—
STAV- ‘praise, extol’	<i>stoṣ-</i> : <i>ástoṣ</i> ‘I praised, have praised’	<i>tuṣu-</i> : <i>tuṣtuvur</i> ‘they have praised’
HAN- ‘strike’	—	<i>jaghan-</i> : <i>jaghāna</i> ‘has struck’

which, among other things is corroborated by the fact that VAC- ‘say’ is associated with the Present stem *vīvac-* in Early Vedic and hence by hypothesis does not represent an instantaneous achievement. Instead, these verbs seem to have the lexical semantic properties typical of accomplishments and the relevant semantic difference thus appears to concern the presence or absence of the change of state feature. The relevant generalization thus seems to be that given a quasi-synonymous pair of verbs consisting of a change of state verb and a verb lacking this feature, the former member will tend to be attested in the Aorist and/or Perfect and the second will tend to be attested in the Present; hence the two verbs will tend to be strongly associated and to form a suppletive paradigm.

The data in Table 2.10 seem to suggest that activity verbs are generally compatible with an Aorist as well as a Perfect stem. Turning now to the state verbs in Table 2.11, the picture is different. Ten out of twenty-four verbs lack both an Aorist and a Perfect stem, and out of the remaining fourteen verbs, six have both an Aorist and a Perfect stem, six have only a Perfect stem and two have only an Aorist stem. The relative frequency of Aorist and Perfect forms is thus considerably smaller with state verbs than with activity verbs. Note that the Aorist and Perfect forms associated with the activity verbs listed in Table 2.10 all are in the Indicative mood, whereas Aorist and Perfect Indicative forms of state verbs are comparably more rare; five out of the eight Aorist forms and ten out of twelve Perfect forms are in the Indicative mood and some of the forms included could be argued to be inconclusive.

Table 2.11: Some state verbs and their morphological inventory

VERB	AORIST STEM	PERFECT STEM
AS- 'be'	—	<i>ās-</i> : <i>āsa</i> 'has been'
ĀS- 'sit'	—	—
ĪŚ- 'be master'	—	—
KALP- 'be in accordance'	—	<i>cākḷp-</i> : <i>cākḷpre</i> 'they have been in accordance'
KṢAY ¹ - 'have power'	—	—
KṢAY ² - 'live, dwell'	<i>kṣeṣ-</i> : <i>kṣeṣat</i> 'he shall dwell'	—
CHAND- 'seem, please'	<i>chānts-</i> : <i>achān</i> 'seemed, has seemed'	<i>cachand-</i> : <i>cachanda</i> 'has seemed'
JĪV- 'live'	—	—
TAV ¹ - 'be strong'	—	<i>tutav-</i> : <i>tutāva</i> 'has been strong'
DVEṢ- 'hate'	—	—
PAN ¹ - 'admire'	<i>paniṣ-</i> : <i>paniṣṭa</i> 'he admire'	<i>papan-</i> : <i>papana</i> 'I have admired'
PĀ- 'protect'	—	—
BHĀ- 'shine'	—	—
MARḌ- 'be gracious'	—	<i>mamṛḍ-</i> : <i>mamṛḍyur</i> 'they may have been gracious'
METH ¹ - 'be hostile'	—	<i>mimeth-</i> : <i>mimetha</i> 'has been hostile'
MOH- 'be exhausted'	—	—
RAN- 'be happy, rejoice'	<i>rāṇiṣ-</i> : <i>arāṇiṣur</i> 'they were happy, have been happy'	<i>rāraṇ-</i> : <i>rāraṇa</i> 'I have been happy'
RAM- 'rest'	<i>raṃs-</i> : <i>āraṃsta</i> 'he rested, has rested'	—
VAS- 'desire'	—	—
VAS ¹ - 'wear'	<i>vasiṣ-</i> : <i>avasiṣṭa</i> 'worn, has worn'	<i>vāvas-</i> : <i>vāvase</i> 'has worn'
VAS ³ - 'spend the night'	—	<i>ūṣ-</i> : <i>ūṣatur</i> 'the two have spent the night'
VĀ- 'blow'	—	—
ŚAY- 'lie'	<i>śayiṣ-</i> : <i>aśayiṣṭhās</i> 'you lay, have lain'	<i>śasay-</i> : <i>śasayānās</i> 'lain'
ŚRAM ¹ - 'be exhausted'	<i>śramiṣ-</i> : <i>śramiṣma</i> '[don't] we become exhausted'	<i>śasramur</i> 'they have been exhausted'

For example, although *kṣeṣat* ‘he shall live’ could be interpreted as an isolated regular full-grade Subjunctive form of an otherwise unattested sigmatic Aorist stem *kṣeṣ-*, Narten (1964: 38–41) notes that there is in fact a considerable number of paradigmatically isolated Subjunctive forms of this type in Early Vedic and some scholars take these forms to represent a productive derivational pattern (cf. e.g. Tichy 2006: 311–318). A similar point could be made with regard to the prohibitive Injunctive form *śramiṣma* ‘[don’t] we become afraid’ which at first glance appears to represent the only attested form belonging to a sigmatic Aorist stem *śramiṣ-*. However, on closer examination it is doubtful whether a prohibitive Injunctive form is sufficient to assume the existence of a full-fledged Aorist paradigm. Above all, one may observe a marginal tendency in the R̥gveda to derive prohibitive Injunctive forms from various types of Present stems by means of the suffix *-iṣ-*, as illustrated by the forms *ūnayīt* ‘[don’t] leave deficient!’ (RV I 53.3) and *dhvanayīt* ‘[don’t] he envelop with smoke!’ (RV I 162.15) derived from a denominative and a causative Present stem respectively (cf. Narten 1964: 291–292, Hoffmann 1967: 63, Jamison 1983a: 115). Prohibitive sentences seem to be the only clause type where Injunctive forms are not interchangeable with any other morphosyntactic categories and it is significant that this is the only environment in which the Injunctive remains productive after the Early Vedic period (cf. Hoffmann 1967: 107). Secondary forms of this type could therefore be interpreted as an indication that the *-iṣ-* suffix represented a pattern of deriving prohibitive Injunctive forms which was ultimately independent of the Aorist system.⁵⁴ Just as there is no reason to postulate a full-fledged Aorist paradigm on the basis of prohibitive Injunctive forms like *ūnayīt* and *dhvanayīt*, one may have reasonable doubts about whether there is any good reason to assume that an isolated prohibitive Injunctive form like *śramiṣma* actually reflects that *ŚRAMI-* ever had an Aorist paradigm. If these arguments are valid, the number of Aorist forms associated with state verbs turns out to be even smaller than first estimated.

Before concluding the discussion of the data in Table 2.11, a potentially significant distributional fact should be briefly noted, namely that

⁵⁴ In fact, Hoffmann’s (1967: *passim*) claim that there is a systematic semantic difference in prohibitive clauses between the ‘inhibitive’ Present Injunctive and the ‘preventive’ Aorist Injunctive might strengthen this hypothesis to the effect that the *-iṣ-* suffix in fact represented a way of deriving preventive Injunctive forms which was independent of the Aorist system.

all the state verbs with a Perfect Stem appear to represent so-called stage-level states, that is, state verbs underspecified with regard to the [+Single Event] feature.⁵⁵ As will be shown in Chapter Five below, the Perfect Stem is strongly associated with a multiple event reading, not least because the Perfect Indicative represents the main expression of habituality in the past (cf. also Renou 1925: 23, Kiparsky 1998: 33–35). This observation provides a straightforward semantic motivation for the fact that the Perfect does not occur with state verbs like *İŞ-* ‘be master’, *KŞAY^I-* ‘have power’, *JİV-* ‘live’ or *DVEŞ-* ‘hate’ which can be taken to be inherently associated with the [+Single Event] feature but is found with *CHAND-* ‘seem, please’, *KALP-* ‘be in accordance, adapt’, *PAN^I-* ‘admire’ which appear to be underspecified in this respect. Note also that the state verbs showing an Aorist Stem strongly tend to also have a Perfect Stem but not conversely. It was noted in the Introduction that some scholars take the Aorist to represent a semantically more specific category than the Perfect and this suggestion would seem to find some support in the distribution patterns illustrated by Table 2.11.

On the basis of the data in Tables 2.10 and 2.11, it is tempting to conclude that, to some extent at least, the distribution of Aorist and Perfect forms is determined by whether the verb is dynamic or not. The general rule seems to be that inherently dynamic activity verbs like *AV^I-* ‘help, promote’, *KRAM^I-* ‘stride’, *CAR-* ‘move’ and *YODH-* ‘fight’ may select an Aorist as well as a Perfect stem unless blocked by a quasi-synonymous change of state verb, as was argued to be the case with *AD-* ‘eat’, *DRAV-* ‘run’, *BRAV^I-* ‘say’, *HAN-* ‘smite’ and possibly *TRAS-* ‘tremble, be afraid’. Non-dynamic state verbs like *İŞ-* ‘be master’, *KŞAY^I-* ‘have power’, *JİV-* ‘live’ and *DVEŞ-* ‘hate’, on the other hand, are less readily compatible with the Aorist and the Perfect, but the fact that *CHAND-* ‘seem, please’, *PAN^I-* ‘admire’, *RAŃ-* ‘be happy, rejoice’, *VAS^I-* ‘wear’, *ŞAY-* ‘lie’ and possibly *ŞRAM^I-* ‘be exhausted’, are attested with forms belonging to both an Aorist and a Perfect stem clearly indicates that this class of verbs is not universally incompatible with these two inflectional categories. Within the framework developed in Chapter One, the apparent exceptions to this rule could be

⁵⁵ I am grateful to Paul Kiparsky for having brought this distributional fact into focus for me.

interpreted as a reflection of the radically underspecified character of state verbs. More specifically, state verbs are taken to be underspecified with regard to dynamicity and hence in principle are compatible with a dynamic interpretation. It is significant that the verbs under discussion, unlike for instance *ĪṢ-* ‘be master’ or *JĪV-* ‘live’, denote situations which are typically conceptualized as repeatable and hence do not entail that the situation only holds throughout a unique time interval, as state verbs associated with the [Singular Event] entailment may be speculated to be less easily interpreted as dynamic.

Although the tendencies discussed in this and the previous section clearly represent general synchronic tendencies, one cannot exclude the possibility that they reflect rules which were effective at an earlier period (cf. also Kiparsky 1998: 45, especially footnote 34). Arguments of this kind create severe difficulties for any attempt to give an account of a language at the beginning of its tradition. It therefore seems most prudent to take the morphological system of the Rigveda at face value, assuming that it reflects the synchronic linguistic reality in the Early Vedic period. It cannot be excluded that this assumption may be wrong, but it represents a reasonable working hypothesis as long as there is no unequivocal evidence to the contrary.

2.2 *Telic and atelic verb phrases*

This section briefly examines some ways in which telic and atelic verb phrases are formally distinguished in Early Vedic. Recall from the discussion in Chapter One that telicity is defined as a property of verb phrases that, among other things, depends on the lexical semantic properties of the verb, above all whether it denotes a change of state or not. However, another important element in the complex notion of telicity adhered to in this work concerns the quantificational properties of the distinguished verbal argument, e.g. the direct object of transitive verbs or the subject of unaccusative verbs. When the distinguished argument of a change of state verb like *BHED-* ‘split, destroy’ denotes a specific quantity, the resultant verb phrase is defined as telic. When, on the other hand, it denotes a non-specific quantity, the resultant verb phrase is defined as atelic. This difference may be illustrated by the following examples.

- (64) a. *bhinád* *valám* *índro*
 split-2SG.PRS.INJ Vala-ACC Indra-NOM
āṅgirasvān //
 accompanied.by.the.Āṅgirasas-NOM
 ‘Accompanied by the Āṅgirasas Indra killed Vala’⁵⁶ (RV II 11.20d)
- b. *bhinát* *púro* *navatīm*
 split-2SG.PRS.INJ strongholds-ACC ninety
indra *pūráve*
 Indra-VOC Pūru-DAT
dívodāsāya *máhi* *dāśúṣe* *nṛto*
 divodāsa-DAT great-ACC devout-DAT dancer-VOC
 ‘You destroyed ninety strongholds, O Indra, for Pūru, for the very devout Divodāsa, O dancer’⁵⁷ (RV I 130.7ab)
- c. *bhinát* *púro* *ná* *bhído*
 split-2SG.PRS.INJ strongholds-ACC like splittings-ACC
ádevīr
 impious-ACC
 ‘Like strongholds you destroy impious intrigues’⁵⁸ (RV I 174.8c)

Intuitively, verb phrases like *BHED- valám* ‘kill Vala’ and *BHED- púro navatīm* ‘destroy ninety strongholds’ entail that the situation they denote has a clearly identifiable endpoint which is reached when Vala is killed or the ninety strongholds are destroyed, respectively. A verb phrase like *BHED- bhído ádevīs* ‘destroy impious intrigues’, on the other hand, lacks this entailment, as nothing prevents the total amount of impious intrigues to be infinite and, as a consequence, the situation could be understood as going on forever. In fact, this interpretation is far from unlikely in the present case, as the sentence appears to have a timeless or generic meaning. A similar point could be made in the case of verb phrases where the second argument is left unexpressed,

⁵⁶ Cf. Geldner (1951a: 289): ‘Indra spaltete in Begleitung der Āṅgiras’ den Vala.’ (cf. also Witzel and Gotō 2007: 368).

⁵⁷ Cf. Geldner (1951a: 183): ‘Du brachst für Pūru Divodāsa die neunzig Burgen, für den reichlich spendenden, du Tänzer.’ Witzel and Gotō (2007: 244) translate the passage as follows: ‘Du brachst die Palisaden, o Indra, für Pūru, für den sehr huldigenden Divodāsa, du Tänzer.’

⁵⁸ Cf. Geldner (1951a: 253): ‘Brich die gottlosen Einbrüche (?) wie ihre Burgen;’ Witzel and Gotō (2007: 322) translate the passage as follows: ‘Du spaltest wie die Palisaden die gottlosen Spaltungsversuche.’

which are defined as atelic irrespective of the lexical semantic properties of the base verb from which they are derived. Consider again the examples (61d) and (61e) above, repeated here for convenience.

- (61) d. *tasthaú* *mātá* *viṣito*
 stand -3SG.PRF mother-NOM let.loose-NOM
atti *gárbhaḥ* /
 eat-3SG.PRS child-NOM
 ‘The mother has stood (up), having been released the child is eating’⁵⁹ (RV X 27.14b)
- e. *prātaryāvānā* *prathamā* *yajadhvam*
 going.out.at.daybreak-ACC first-ACC sacrifice-2PL.PRS.IMP
purá *gṛdhrād* *áraruṣaḥ* *pibātaḥ* /
 before vulture-ABL envious-ABL drink-3DU.PRS.SBJ
prātár *hí* *yajñám* *aśvínā*
 at.daybreak for sacrifice-ACC Ásvins-NOM
dadhāte
 receive-3DU.PRS
 ‘Sacrifice first to the two who are going out at daybreak! They shall drink before any envious vulture, for the Ásvins receive their sacrifice in the morning’⁶⁰ (RV V 77.1ab)

Section 2.2.1 elaborates on the morphosyntactic expression of specific and non-specific noun phrase quantification in Early Vedic.

In contrast, two-place activity verbs like *NAY*^l- ‘lead’ or state verbs like *PĀ*- ‘protect’ do not entail a change of state and hence do not obligatorily predicate an incremental relation between the situation and the distinguished argument. As a consequence, verb phrases derived from these types of verbs are considered to be atelic, irrespective of whether the distinguished argument denotes a specific quantity or not. Consider the following examples:

- (65) a. *ráthe* *tíṣṭhan* *nayati* *vājínaḥ*
 wagon-LOC standing-NOM lead-3SG.PRS steeds-ACC
puró
 forward

⁵⁹ Cf. Geldner (1951c: 167): ‘Die Mutter steht still, entbunden frisst das Kind.’

⁶⁰ Cf. Geldner (1951b: 82): ‘Opfert den frühkommenden Zuerst; sie sollen vor dem mißgünstigen Geier trinken, denn am Morgen empfangen die Ásvin ihr Opfer.’

yātra-yatra kāmāyate suṣārathīḥ /
 wherever desire-3SG.PRS excellent.charioteer-NOM
 ‘Standing on the wagon the excellent charioteer leads the war-
 horses forward wherever he wishes’⁶¹ (RV VI 75.6ab)

- b. sunitībhir nāyasi trāyase
 good.counsel-INS.PL lead-2SG.PRS protect-2SG.PRS
 jānam
 man-NOM.SG
 yās túbhyaṃ dāśāt
 who-NOM.SG you-DAT.SG serve-3SG.PRS.SBJ
 ‘With good counsels you lead, you protect the man who serves
 you’⁶² (RV II 23.4ab)

- c. paśūñ ca sthātṛñ carāthaṃ ca
 cattle-ACC and immovable-ACC movable-ACC and
 pāhi
 protect-2SG.PRS.IMP
 ‘Protect the herds and the standing and moving things’⁶³ (RV
 I 72.6d after Klein 1985a: 207)’

- d. yamāsyā yó manāvate
 Yama-GEN who-NOM think-3SG.PRS.SBJ
 sumāntu
 well.known-ACC
 āgne tám ṛṣva pāhi
 Agni-VOC he-ACC noble-VOC protect-2SG.PRS.IMP
 āprayuchan //
 attentively
 ‘He who shall honor Yama’s well known [name], O noble
 Agni, protect him attentively’⁶⁴ (RV X 12.6cd)

⁶¹ Cf. Geldner (1951b: 177): ‘Auf dem Wagen stehend lenkt der treffliche Wagenlenker die Streitrosse voran, wohin er immer will.’

⁶² Cf. Geldner (1951a: 303): ‘Mit guten Weisungen leitest du, schüttest du den Mann, der dir zu Spenden pflegt.’ Witzel and Gotō (2007: 286) translate the passage as follows: ‘Wer dir huldigen wird, den soll keine Bedrängnis treffen!’

⁶³ Cf. Geldner (1951a: 95): ‘Hüte du die Tiere und alles was steht und geht!’ Witzel and Gotō (2007: 132) translate the passage as follows: ‘Schütze die stehenden Haustiere und das Gehende!’

⁶⁴ Cf. Geldner (1951c: 140): ‘Wer aber an des Yama Namen von gutem Andenken denkt, den schütze ohne Unterlaß, du erhabener Agni!’

Recall from the discussion in Chapter One that state and activity verbs are taken to be underspecified with regard to the change of state feature, something which within the present framework implies that they are in principle compatible with a change of state reading. One consequence of this assumption is that atelic verb phrases of the type cited in (65) may be expected to assume a telic reading under given circumstances, for instance when they are modified by preverbal particles and certain types of adverbial phrases, a topic which will be addressed in Section 2.2.2.

2.2.1 *Noun phrase quantification*

This section examines some morphosyntactic strategies for distinguishing specifically quantified noun phrases from noun phrases underspecified in this respect. Broadly speaking, these include morphological number marking, lexical quantifiers, demonstrative pronouns and other definiteness strategies and case alternation. The discussion in this section is far from exhaustive and more detailed research is needed to fully understand this area of Early Vedic grammar.⁶⁵

Early Vedic has three inflectional number categories, singular, dual and plural. In most cases, the singular and dual automatically give rise to a specifically quantified interpretation of the noun phrase, typically presupposing that the denotation of the noun phrase consists of exactly one or exactly two entities. There are at least two exceptions to this general rule. First and most importantly, mass nouns like *dāru* ‘wood, timber’, *sóma*- ‘soma juice’, *ánna*- ‘food’, *áp*- ‘water’ and *ásrj*- ‘blood’ do not necessarily denote a specific quantity even when they have singular number marking. Moreover, some types of generic sentences may refer to a non-specific quantity by means of singular number. Generic sentences will be left out of the following discussion. As regards mass nouns, it will be assumed in the following that they behave roughly like noun phrases with plural number marking. The following observations concerning the issues arising from plural number marking will thus mostly be directly transferable to mass nouns as well.

⁶⁵ As regards definiteness strategies, relevant information is found in Carlotta Viti’s (2008, 2009, forthcoming) important studies on the relationship between word order and information structure in Vedic and related languages.

Count nouns in the singular or dual typically pick out exactly one or exactly two entities of the type referred to by the noun. Consider the following examples:

- (66) a. áhann áhiṃ párvate
 smite-3SG.IPF dragon-ACC mountain-LOC
 śísriyāṇám
 lie-PRS.PRT.ACC
 ‘He smote the dragon lying on the mountain’⁶⁶ (RV I 32.2a)
- b. vṛṣṇe te hárī vṛṣaṇā
 bull-DAT you-DAT horses-ACC.DU bullish-ACC.DU
 yunajmi
 yoke-1SG.PRS
 ‘For you, the bull, I yoke the two bullish stallions’⁶⁷ (RV VII 19.6c)

In the case of count nouns, singular and dual number marking implies that the noun phrase denotes a specific quantity. Verb phrases derived from a change of state verb with a count noun marked by singular or dual number thus are telic by definition.

In the case of count nouns with plural number marking and mass nouns with singular or plural number marking, matters are less clear. In Early Vedic, plural number marking simply expresses that there are more than two referents of the type denoted by the noun and hence does not pick out a specific quantity. Also, mass nouns typically pick out an indefinite quantity of stuff irrespective of whether they have singular or plural number marking.⁶⁸ Hence, verb phrases with an internal argument consisting of a bare noun phrase comprised of a count noun with plural number marking or a bare mass noun are atelic by definition, even in cases where the verb entails that the refer-

⁶⁶ Cf. Geldner (1951a: 36): ‘Er erschlug den Drachen, der sich auf dem Berge gelagert hatte.’

⁶⁷ Cf. Geldner (1951b: 199): ‘Dir, dem Bullen, schirre ich die beiden bullenartigen Falben an.’

⁶⁸ I have found no unequivocal examples of mass nouns with dual number marking in Early Vedic, something which probably reflects the somewhat marked character of this constellation. This distributional difference may be hypothesized to constitute a constitutive criterion for distinguishing mass nouns from count nouns in Early Vedic. However, a full evaluation of this possibility must be reserved for another occasion.

ent undergoes a change of state. Consider the examples cited below (cf. also (64c) above):

- (67) a. *pávamāna* *bādhase* *soma*
 Pavamāna-VOC repel-2SG.PRS Soma-VOC
 śátrūn //
 enemies-ACC
 ‘O Soma Pavamāna, you drive enemies away’⁶⁹ (RV IX 94.5d)
- b. *jātāvedase* *sunavāma* *sómam*
 Jātavedas-DAT extract-1PL.PRS.SBJ soma.juice-ACC
 ‘We will extract soma juice for Jātavedas’⁷⁰ (RV I 99.1a)
- c. *sthirā* *cid* *ánnā* *ní* *riṇāti*
 firm-ACC even foods-ACC down sever-3SG.PRS
 ójasā
 bodily.strength-INS
 ‘He breaks down even firm food with his bodily strength’⁷¹
 (RV I 127.4f)

We do not wish to suggest, however, that count nouns in the plural or mass nouns necessarily give rise to an atelic interpretation in constellations of the type noted above. For instance, verb phrases consisting of a change of state verb and a plural noun phrase containing a numeral, a universal quantifier or an existential quantifier have a telic meaning, as briefly discussed in Chapter One. Verb phrases like the ones cited in (68) may thus be regarded as telic.

- (68) a. *catvāri* *anyā* *bhúvanāni* *nirṇije*
 four-ACC others-ACC beings-ACC adorn.one’s.self-INF
 cārūṇi *cakre* *yád* *ṛtaír*
 lovely-ACC.PL make-3.SG.PRF when rules-INS
 ávardhata //
 grow-3.SG.IPF.MID

⁶⁹ Cf. Geldner (1951c: 91): ‘O Pavamāna Soma, du verdrängst die Feinde.’

⁷⁰ Cf. Geldner (1951a: 127): ‘Dem Jātavedas wollen wir Soma pressen.’

⁷¹ Cf. Geldner (1951a: 177): ‘Er zerreit selbst die festen Speisen mit Kraft.’

‘He made himself four other beautiful beings to adorn himself when he was growing according to the rules’⁷² (RV IX 70.1cd)

- b. bíbharti cáru índrasya nāma
 carry-3SG.PRS beloved-ACC Indra-GEN name-ACC
 yéna *viśvāni* vṛtrā jaghāna //
 which-INS all-ACC enemies-ACC smite-3SG.PRF
 ‘He is carrying the beloved name of Indra, by whom he has killed all enemies’⁷³ (RV IX 109.14cd)

- c. agnír vṛtrāṇi dayate *purūṇi* //
 Agni-NOM enemies-ACC destroy-3SG.PRS many-ACC
 ‘Agni destroys many enemies’⁷⁴ (RV X 80.2d)

In cases like these, the verb phrases are taken to be telic, something which among other things presupposes that numerals like *tray-* ‘three’, *catvar-* ‘four’, *pāñca-* ‘five’ etc., universal quantifiers like *viśva-* ‘all, every’, *sārva-* ‘all, every’ and existential quantifiers like *bhūri* ‘much, many’, *pūru-* ‘much, many’ denote a specific quantity. While this assumption should be fairly uncontroversial in the case of numerals and universal quantifiers, as both denote a definite quantity, it appears to be somewhat less intuitive in the case of existential quantifiers denoting an indefinite quantity. The main motivation for treating the latter on a par with the two former types of quantifiers in the present contexts is that all of them tend to give rise to a telic interpretation (cf. also Krifka 1998: 220–222 with references, Borer 2005: 143–149). Simplifying matters slightly, quantifier expressions like those cited in (68) may be regarded as special types of determiners, an important function of which is delimiting the denotation of common nouns (cf. Barwise and Cooper 1981, Chierchia and McConnell-Ginet 2000: 501–511 for a more thorough formal discussion of these and related matters). Early Vedic existential quantifiers like *bhūri* ‘much, many’ or *pūru-* ‘much, many’ may be taken to impose an (indefinite) limit on the number of referents picked out by the plural noun.

⁷² Cf. Geldner (1951c: 61): ‘Vier andere schöne Wesen machte er sich zum Festgewand, als er nach den Regeln groß wurde.’

⁷³ Cf. Geldner (1951c: 115): ‘Er führt den angenehmen Namen des Indra, mit dem er alle Feinde erschlagen hat.’

⁷⁴ Cf. Geldner (1951c: 262): ‘Agni macht die vielen Feinde klein.’

Demonstrative pronouns constitute another important class of determiners which impose an indefinite limit on the number of referents picked out by plural noun phrases. In Early Vedic there are at least five different demonstrative pronouns, namely *eṣa-/eta-* ‘this here’ and *ay-/id-* ‘this here’, both of which mark proximal deixis, *sya-/tya-* ‘that’ and *a-* ‘that there’, both of which mark distal deixis, and *sa-/ta-* ‘that, this here’, which do not appear to mark this contrast (cf. Delbrück 1888: 209–221, Kupfer 2002, 2003 for a more thorough discussion of the various uses of these demonstrative pronouns). Consider the examples in (69).

- (69) a. *ahám etā mánave viśváścandrāḥ*
 I-NOM these-ACC Manu-DAT all.glittering-ACC
sugā apás cakara
 easy.to.traverse-ACC waters-ACC make-1.SG.PRF
vájrabāhuḥ //
 mace.handed-NOM
 ‘With the mace in my hand I made these all-glittering waters easy to traverse for Manu’⁷⁵ (RV I 165.8cd)
- b. *áva tyā bṛhatír iṣo viśváścandrā*
 off those-ACC great-ACC libations-ACC all.glittering- ACC
amitrahan /
 enemy.killer-VOC
śácibhiḥ śakra dhūnuhi
 skills-INS mighty-VOC shake-2.SG.PRS.IMP
 ‘Shake off those great all-glittering libations, O killer of enemies, with your skills’⁷⁶ (RV X 134.3a–c)
- c. *imā gíra ādityébhyo*
 these.here-ACC songs.of.praise-ACC Ādityas-DAT
ghṛtásnūḥ
 ghee.dripping-ACC
sanád rájabhyo juhvá juhomi /
 old-ABL kings-DAT tongue-INS praise-1.SG.PRS

⁷⁵ Cf. Geldner (1951a: 239): ‘Ich habe diese allschimmernden Gewässer für Manu wegsam gemacht mit der Keule in der Hand’.

⁷⁶ Cf. Geldner (1951c: 366): ‘Schüttele jene großen Labsale, die allschimmernden, du Feindetöter, mit deiner Macht herab’.

‘I sacrifice these ghee-dripping songs of praise with my tongue to the Ādityas, the kings of old’⁷⁷ (RV II 27.1ab)

At this point we need to address the thorny problem of definiteness marking in Early Vedic. Recall from the discussion in Chapter One that that definiteness contrasts is not obligatorily expressed in all languages and that Early Vedic has traditionally been classified as a language without proper definiteness markers (cf. e.g. Macdonell 1916: 287). As definiteness contrasts systematically determine the quantificational properties of noun phrases, it is of crucial importance that we identify some relatively clear cut criteria for establishing whether a given noun phrase has a definite or indefinite meaning.

An important preliminary question concerns whether definiteness contrasts should be regarded as a semantic or pragmatic dimension and what type of notions are involved. Löbner (1985) notes that one may roughly differentiate two fundamentally different uses of definite noun phrases, namely cases where a definite noun phrase picks out a referent which is established independently of the immediate discourse context and cases where a definite noun phrase picks out a referent determined by the immediate discourse context. Following Napoli (2009) the terms *logical definiteness* and *pragmatic definiteness* are used in the following to distinguish these two uses of definite noun phrases.

In the present context, logical definiteness is conceived of as a type of definiteness which is inherently associated with proper nouns like *índra-* ‘Indra’, *máruṭ-* ‘Maruts’ or *vṛtra-* ‘Vṛtra’, personal pronouns like *ahám* ‘I’, *tvám* ‘you’ or *vayám* ‘we’, demonstrative pronouns like *eṣa-/eta-* ‘this here’, *ay-/id-* ‘this here’, *sya-/tya-* ‘that’ or *sa-/ta-* ‘that, this here’ and common nouns denoting unique entities like *pr̥thivī-* ‘the earth’, *sūrya-* ‘the sun’ or *candrāmas-* ‘the moon’. Noun phrases containing one or more lexemes belonging to these word classes may be expected to always have a specifically quantified meaning.

Pragmatic definiteness, on the other hand, is conceived of as a type of definiteness which depends on contextual factors and, accordingly,

⁷⁷ Cf. Geldner (1951a: 309): ‘Diese salbungvolle Lobreden opfere ich den Āditya’s mit der Zunge (als Löffel), den Königen von alters her’.

one may differentiate cases where pragmatic definiteness depends on factors in the linguistic context from cases where it depends on factors in the extra-linguistic context (cf. Löbner 1985, Napoli 2009). This distinction roughly corresponds to the traditional distinction between anaphoric and deictic or referential uses of demonstrative pronouns, which, with a formally oriented approach, may be interpreted in terms of bound versus free variable readings. Specifically, the anaphoric use canonically presupposes that the pronoun is ‘bound’ by a referent which has been mentioned at least once before in the previous context, whereas the deictic use presupposes that it is not bound in this sense and hence may be used to refer to a previously unmentioned referent in the extra-linguistic context. Simplifying matters slightly, one might apply this analysis to definite noun phrases more generally, so that the distinction between the two types of pragmatic definiteness ultimately amounts to a bound and a free variable reading associated with definite noun phrases.

So far we have mainly been concerned with different readings typically associated with definite noun phrases. Before continuing the discussion and proceeding to indefinite noun phrases we need to address briefly the question about definiteness markers in Early Vedic. It was noted previously that *sa-/ta-* ‘that, this here’ appears to be underspecified with regard to the proximal vs. distal opposition that plays an important role in the Early Vedic system of demonstrative pronouns. In fact, *sa-/ta-* seems to behave like a definite article in many respects, something which is reflected by the fact that it has traditionally been understood as referring to ‘something already known either as just mentioned or as generally familiar’ (Macdonell 1916: 293). Nevertheless, it is significant that the use of *sa-/ta-* differs from that of the English definite article in at least two significant respects. For one thing, it is occasionally used as a determiner of noun phrases where the head is constituted by a proper name, a personal pronoun or a demonstrative pronoun. Moreover, it is occasionally used as the head of a noun phrase. The following examples illustrate these uses of *sa-/ta-*.

- (70) a. *tám* *índraṃ* *vājayāmasi* *mahé*
 this-ACC Indra-ACC impel-1PL.PRS great-DAT
 vṛtrāya *hántave /*
 Vṛtra-DAT kill-INF

‘We urge (*the) Indra to kill the mighty Vṛtra’⁷⁸ (RV VIII 93.7ab)

- b. *sá tvám agne vibhāvasuḥ*
 this-NOM you-NOM Agni-VOC rich.in.light-NOM
srján sūryo ná raśmībhiḥ /
 spreading-NOM sun-NOM like beams.of.light-INS
śārdhan támāṃsi jighnase //
 bold-NOM darkness-ACC smite-2SG.PRS
 ‘(*The) you, Agni, rich in light like the sun spreading out with rays, boldly strike the darkness (away)’⁷⁹ (RV VIII 43.32)
- c. *yám aíchāma mānasā sò ‘yám*
 who-ACC seek-1PL.IPF mind-INS this-NOM this-NOM
āgād
 come-3SG.AOR
 ‘(*The) he has come, whom we sought with our mind’⁸⁰ (RV X 53.1a)
- d. *mitrāya pāñca yemire jānā*
 Mitra-DAT five obey-3PL.PRF races-NOM
abhiṣṭisavase /
 whose.assistance.is.powerful-DAT
sá devān víśvān bibharti //
 this-NOM gods-ACC all-ACC carry-3SG.PRS
 ‘The five races of men have (always) obeyed Mitra, whose assistance is powerful. (*The)/He carries all the gods’⁸¹ (RV III 59.8)

These examples demonstrate that *sa-/ta-* is not functionally equivalent to the English definite article, but it is unclear as to whether this fact necessarily implies that it represents a demonstrative pronoun rather than a definite article as there is considerable cross-linguistic variation as to how definite articles are employed (cf. Napoli 2009). Above all, the use of *sa-/ta-* with proper names illustrated by (70a) could represent

⁷⁸ Cf. Geldner (1951b: 417): ‘Diesen Indra eifern wir an, den grossen Vṛtra zu töten.’

⁷⁹ Cf. Geldner (1951b: 358): ‘Du, Agni, Glanzreich, wie die Sonne mit Strahlen schießend, vertreibst kraftbewusst die Finsternis.’

⁸⁰ Cf. Geldner (1951c: 215): ‘Gekommen ist jetzt der, den wir im Geiste suchten.’

⁸¹ Cf. Geldner (1951a: 407): ‘Dem Mitra sind die fünf Völker ergeben, dessen Macht überlegen ist. Er trägt alle Götter.’

a pattern associated with definite articles which is well attested across languages. Further, its apparently redundant use with personal and demonstrative pronouns, illustrated by (70b) and (70c) respectively, could represent an extension of this pattern. However, the purely pronominal use of *sa-/ta-* illustrated by (70c) suggests in fact that it is not a definite article. It therefore appears that more detailed research is needed in order to clarify the semantic and pragmatic properties of *sa-/ta-* in Early Vedic, which would extend beyond the scope of this work.

Even if *sa-/ta-* appears to be used like a definite article to some extent at least, there is no obvious candidate for an indefinite article in Early Vedic. A reasonable assumption thus would be that definite noun phrases are explicitly marked by *sa-/ta-* or by some of the other means discussed above, whereas indefinite noun phrases typically lack an explicit definiteness marker. This would provide a neat equipollent opposition between definite noun phrases characterized by the presence of a definite determiner and bare noun phrases with a markedly indefinite meaning, a system which in many respects would resemble that found in English. However, this assumption runs into the apparent difficulty that that Early Vedic bare noun phrases may be rendered as either indefinite or definite in English. Consider for instance the examples in (71).

- (71) a. áthā sómasya práyatī yuvábhyām
 Therefore soma-GEN offering-INS you.two-DAT
 índrāgnī stómaṃ janayāmi
 Indra.and.Agni hymn-ACC produce-1.SG.PRS
 návyam
 new-ACC.SG.MASC.
 ‘Therefore I make a (/the) new hymn, Indra and Agni, with
 an offering of soma for both of you’⁸² (RV I 109.2cd)
- b. stómaṃ juṣethām yuvaśá
 hymn-ACC enjoy-2.DU.PRS.IMP young.men-NOM.DU
 iva kanyánām
 like maiden-ACC

⁸² Cf. Geldner (1951a: 141): ‘Darum verfertige ich unter Darbringung von Soma auf euch beide, Indra und Agni, ein neues Loblied’.

‘Enjoy the (/ʔa) hymn, ye two, like two young men enjoy a maiden’⁸³ (RV VIII 35.5a)

As there is no previous mention of a hymn in either of the two hymns from which the two examples are extracted, this is not a case of anaphora. On the contrary, *stómam* ‘hymn’ in both cases appears to have a cataphoric function in that it introduces a new discourse referent, a discourse function that is canonically associated with indefinite noun phrases. Nevertheless, a bare noun phrase like *stómam* ‘hymn’ may be rendered either as indefinite or as definite in English (and German, as illustrated by Geldner’s translation) something that may be taken as a *prima facie* indication that bare noun phrases are vague between a definite and an indefinite reading in Early Vedic.

On second thoughts, however, it is unclear whether this observation tells us something interesting about definiteness marking in Early Vedic, as it may simply reflect the fact that the definite articles in English and German can be used to introduce new information in some cases. The data cited in (71) therefore do not provide conclusive counterevidence against the assumption that bare noun phrases are markedly indefinite in Early Vedic.

Given that anaphoric reference constitutes an important element in the somewhat elusive notion of definiteness, this hypothesis would seem to imply that bare noun phrases are incompatible with anaphoric reference in Early Vedic. Significantly, we do find some evidence that this assumption does not hold. For bare noun phrases sometimes occur when the previous mention of the referent in the immediately preceding context makes an anaphoric reading plausible. Consider the following examples:

- (72) a. *índra* *tvā* *vṛṣabhám* *vayám*
 Indra-VOC you-ACC bull-ACC we-NOM
suté *sóme* *havāmahe* /
 extracted-LOC soma-LOC call-1PL.PRS
sá *pāhi* *mádhvo* *ándhasaḥ* //
 this-NOM drink-2SG.AOR.IMP sweet-GEN juice-GEN
índra *kratuvídám* *sutám*
 Indra-VOC powerful-ACC extracted-ACC

⁸³ Cf. Geldner (1951b: 349): ‘Habt Wohlgefallen an dem Lobliede wie Jünglinge an einer Jungfrau’.

- sómañ* *harya* *puruṣtuta* /
 soma-ACC enjoy-2SG.PRS.IMP invoked.by.many-VOC
píbā *vṛṣasva* *tātṛpim* //
 drink-2SG.PRS.IMP shed-2SG.PRS.IMP strong.delight-ACC
 ‘O Indra, we invite you, the bull to the extracted soma. Drink
 of the sweet juice. O Indra, enjoy the extracted soma, you
 who are invoked by many! Drink! Shed the strong delight into
 yourself!’⁸⁴ (RV III 40.1–2)
- b. *ayām* *nidhīḥ* *sarame* *ádribudhno*
 this-NOM hoard-NOM Saramā-VOC situated.on.a.rock-NOM
góbhir *ásvebhir* *vásubhir* *nyṛṣṭaḥ* / (...)
 cows-INS horses-INS riches-INS filled-NOM
svásāraṃ *tvā* *kṛṇavai* *mā púnar*
 sister-ACC you-ACC make-1SG.PRS.SBJ don’t back
gā
 go-2SG.AOR.INJ
ápa te *gávāñ* *subhage*
 off you-DAT cows-GEN beautiful-VOC
bhajāma //
 apportion-1PL.PST.SBJ
 ‘O Saramā, this treasure chamber in the rock is filled with
 cows, horses, riches (...) I will make you my sister. Don’t go
 back! We will give you some of the cows’⁸⁵ (RV X 108.7–9)

In the first example, the noun phrase *suté sóme* ‘(to) extracted soma’ introduces a discourse referent which also represents the referent of the bare noun phrases *mádhvo ándhasas* ‘(of) sweet juice’ and *sutámñ sómam* ‘extracted soma’, hence rendering an anaphoric interpretation likely. In the second example, a similar relation appears to exist between the noun phrases *góbhir* ‘(with) cows’ and *gávām* ‘(of) cows’. Examples like these suggest that bare noun phrases can be used in anaphoric reference in Early Vedic.

⁸⁴ Cf. Geldner (1951a: 383): ‘Indra! Dich, den Bullen. rufen wir zum ausgepressten Soma, trink du vom süßen Trank! Indra! Nimm den ausgepressten Soma, der (guten) Rat schafft, gern an, du Vielgepriesener! Trinke, gieß den Labenden in dich!’

⁸⁵ Cf. Geldner (1951c: 329–330): ‘Diese Schatzkammer auf felsigem Grund ist voll von Rindern, Rossen, Schätzen, o Saramā. (...) So will ich dich zur Schwester machen. Geh nicht zurück; wir wollen dir, Holde, von den Kühen welche abgeben.’

Another potentially significant piece of evidence concerns so-called *indirect anaphora* (cf. Napoli 2009: 572 with references). Indirect anaphora is distinguished from regular or *direct* anaphora by not presupposing that the anaphoric relation is established by the previous mention of the referent, but rather by the previous mention of some other referent that indirectly introduces a set of referents related to it. It is worth noting that bare noun phrases seem to be regularly used in this type of anaphora in Early Vedic, as illustrated by the following examples:

- (73) a. *ayám índro marútsakhā ví*
 this-NOM Indra-NOM marut.friend-NOM apart
vṛtrasya~ abhinac chīraḥ /
 Vṛtra-GEN split-3SG.IPF head-ACC
vájreṇa śatāparvanā //
 mace-INS having.hundred.knots-INS
 ‘Accompanied by the Maruts, this Indra cut off Vṛtra’s head
 with the mace of a hundred knots’⁸⁶ (RV VIII 76.2)
- b. *yujānó haritā rāthe*
 yoke-AOR:PRT.NOM two.bay.mares-NOM wagon-LOC
bhūri tvāṣṭā ~ ihā rājati /
 much-ACC Tvaṣṭar-NOM here rule-3SG.PRS
 ‘Yoking his bays unto the chariot, Tvaṣṭar rules over much
 here’⁸⁷ (RV VI 47.19ab after Klein 1985a: 455)
- c. *utá śuṣṇasya dhr̥ṣṇuyā prá mṛkṣo*
 and Śuṣṇa-GEN boldly forth touch-2SG.AOR.INJ
abhí védanam /
 to property-ACC
púro yád asya sampiṇák //
 strongholds-ACC when he-GEN grind.together-2SG.PRS.INJ
 ‘And you also daringly grabbed the property of Śuṣṇa, smash-
 ing his strongholds’⁸⁸ (RV IV 30.13)

⁸⁶ Cf. Geldner (1951b: 403): ‘Dieser Indra mit den Marut als Kameraden zerspaltete des Vṛtra Haupt mit der hundertknotrigen Keule.’

⁸⁷ Cf. Geldner (1951b: 146): ‘Seine beide Falbinnen an den Wagen spannend schaltet Tvaṣṭṛ hier viel.’

⁸⁸ Cf. Geldner (1951a: 458): ‘Auch des Śuṣṇa Besitz errafftest du mutig, als du seine Burgen zerschlugst.’

- d. *svàrbhānor* *ádha yád* *indra* *māyā*
 Svarbhānu-GEN and when Indra-VOC sorceries-ACC
avó *divó* *vārtamānā*
 down.from heaven-ABL turn.round-PRS.PRT.ACC
avāhan /
 smite.down-2SG.IPF
 ‘Then, O Indra, when you smashed down from heaven the cir-
 cling magic spells of Svarbhanu’⁸⁹ (RV V 40.6ab after Jamison
 1991: 138)

In the first example, the bare noun phrase *vājreṇa śatāparvaṇā* ‘mace of a hundred knots’ is rendered by a definite noun phrase in English and any reader vaguely familiar with Vedic mythology will probably agree that an indefinite noun phrase would seem quite odd here. This preference probably reflects the fact that the mace represents an important attribute of Indra and it is therefore tempting to regard this as an instance of indirect anaphora. In the case of *rāthe* ‘(unto a/the) chariot’ in the second example, a definite noun phrase seems more natural as well, probably because the draught animals have already been mentioned.⁹⁰ A similar point could be made with regard to the translations of the bare noun phrases *védanam* and *māyā* as ‘the property’ and ‘the magic spells’, respectively. The genitive-marked proper nouns *śuṣṇasya* ‘of Śuṣṇa’ and *svàrbhānor* ‘of Svarbhānu’ may be taken to serve as a kind of anaphoric anchor for *védanam* and *māyā*.

The concept of indirect anaphora is intuitively appealing, as it appears to provide a theoretical account of some of the different distributional patterns of definiteness markers across languages. However, its value as an analytical tool remains unclear, especially when applied to a dead language like Early Vedic, not least because the conditions under which a given bare noun phrase is related to a previously mentioned discourse referent are somewhat vague, even impressionistic. A case in point concerns the observation that the noun phrase *vājreṇa śatāparvaṇā* is most naturally rendered as ‘the mace of a hundred knots’ in English. It was suggested that this is due to the previous

⁸⁹ Cf. Geldner (1951b: 38): ‘Damals als du, Indra, die Zaubereien des Svarbhānu, die unter dem Himmel vor sich gingen, zerstörtest.’

⁹⁰ A similar point could be made with regard to the translation of *vājīnas* as ‘the warhorses’ in example (65a) above, where the preceding noun *rāthe* ‘(on a/the) wagon’ renders an indirect anaphorical interpretation likely.

mention of Indra. However, it could just as well reflect the fact that the mace constitutes a unique salient entity in the Early Vedic universe of discourse, so that the preference for a definite rendering in English ultimately reflects the fact that it is 'logically definite' in the sense discussed above. At present, we have no systematic way to decide which interpretation is more plausible, but for our present purposes this weakness is hardly detrimental, as indirect anaphora shall serve as a descriptive concept with modest explanatory pretensions.

The previous discussion suggests that bare noun phrases may either be interpreted as anaphoric-definite or as non-anaphoric-indefinite in Early Vedic. This may be taken as an indication that definiteness ultimately represents a privative notion in this language and, consequently, verb phrases like those cited in (67), where the internal argument consists of a bare plural count noun or a bare mass noun, may be hypothesized to inherit this vagueness, remaining underspecified with regard to specific quantity, and, ultimately, to telicity. This in turn would seem to imply that verb phrases of these types might be expected to be compatible with an atelic as well as a telic interpretation, something which may turn out to cause some difficulties, not least because the distinction between telic and atelic verb phrases constitutes an important heuristic tool for determining the semantic properties of language-specific aspect categories. On the other hand, as briefly noted in Chapter One, it is well known that different aspectual categories give rise to different definiteness effects in languages with a less developed system of definiteness markers than, for instance, English. Verb phrases of these types could thus represent a fruitful field for investigating whether the various morphosyntactic categories in Early Vedic give rise to different definiteness effects, something which might indicate that they have different aspectual properties.

Before concluding this section, we shall briefly consider another area of Early Vedic morphosyntax where telic and atelic verb phrases are formally distinguished, namely object case marking. Although the accusative represents the most common way of expressing the second argument of two- and three-place verbs, a considerable number of verbs select other patterns of object case marking. Some classes of verbs allow their second argument to be expressed by two or more case categories, a phenomenon which is generally known as *object alternation*. The semantic motivation behind the various object alter-

nation patterns in many cases remains obscure and a full discussion of the Early Vedic object alternation system is far beyond the scope of the present work. The following discussion will therefore be limited to a fairly common and in most cases transparent object alternation pattern where the accusative alternates with the genitive.⁹¹

It was briefly mentioned above that ingestion verbs and some perception verbs allow their object argument to be expressed by the accusative, the genitive or to be left unexpressed altogether. The following examples illustrate this object alternation pattern.

- (74) a. *índrāvaruṇā* *sutapāv* *imám*
 Indra.and.Varuṇa-VOC soma.drinkers-VOC this-ACC
sutám
 extracted-ACC
sómam *píbatam* *mádyam*
 sóma-ACC drink-2DU.PRS.IMP intoxicating-ACC
dhṛtavratā /
 whose.order.is.fixed-VOC
 ‘O Indra and Varuṇa, drinkers of soma, drink this extracted
 intoxicating soma, O you who maintain order!’⁹² (RV VI
 68.10ab)
- b. *índrāviṣṇū* *píbatam* *mádhvo*
 Indra.and.Viṣṇu-VOC drink-2DU.PRS.IMP sweet.juice-GEN
asyá
 this-GEN
sómasya *dasrā*
 soma-GEN accomplishing.wonderful.deeds-VOC
jaṭhāram *prṇethām /*
 belly-ACC fill-2DU.PRS.IMP
 ‘O Indra and Viṣṇu, drink of this sweet juice! O you who
 accomplish wonderful deeds, fill your stomachs with soma’⁹³
 (RV VI 69.7ab)

⁹¹ I refer to Beavers 2006 and Butt 2006 for a general discussion of object alternation across languages and Dahl 2009a for a more detailed discussion of object alternation in Early Vedic.

⁹² Cf. Geldner (1951b: 172): ‘Indra und Varuṇa, ihr Somatrinker, trinket diesen ausgepreßten berausenden Soma, die ihr die Gebote aufrecht haltet.’

⁹³ Cf. Geldner (1951b: 173): ‘Indra und Viṣṇu! Trinket von diesem Met, füllet, ihr Meister, den Bauch mit Soma!’

- c. *vísve devāḥ śṛṇutá ~ imám*
 all.gods-VOC hear-2.PL.PRS.IMP this-ACC
hávam me
 invocation-ACC I-GEN
 ‘O all-gods, hear this invocation of mine’⁹⁴ (RV VI 52.13a)
- d. *śyāvāśvasya sunvatás táthā*
 Śyāvāśva-GEN extract-PRS.PRT.GEN thus
śṛṇu
 hear-2.SG.PRS.IMP
yáthā áśṛnor átreḥ kármāṇi
 like listen-3.SG.IPF Atri-GEN sacred.deeds-ACC
kṛṇvatáh /
 do-PRS.PRT.GEN.
 ‘Listen thus to Śyāvāśva extracting (soma), as you listened to
 Atri, performing sacred deeds’⁹⁵ (RV VIII 36.7ab)

Traditionally, this object alternation pattern has been taken to express the degree of affectedness of the internal argument, in the sense that the accusative expresses that the referent is totally affected, whereas the genitive expresses that only a part of the referent is affected (cf. e.g. Delbrück 1888: 158). This analysis is particularly suggestive in the case of the alternating use of these two case categories with ingestion verbs like *PĀ-* ‘drink’, as the accusative would then typically entail that the referent is completely consumed, whereas the genitive implies that only a part of the referent is consumed. The accusative thus would seem to be associated with a telic reading, as it implies that there is some quantity of consumable stuff which is fully consumed. The genitive, on the other hand, would seem to give rise to an atelic reading, implying that there is some quantity of consumable stuff and that a part of this stuff is consumed.

It is not altogether obvious, however, to what extent the semantic distinction between completive and partitive is able to account for the use of the accusative and the genitive with perception verbs like *ŚRAV-* ‘hear, listen’. Although there is an intuitively clear sense in which the verb phrase *ŚRAV- imám hávam me* ‘hear this invocation

⁹⁴ Cf. Geldner (1951b: 156): ‘Alle Götter, erhöret diesen Ruf von mir!’

⁹⁵ Cf. Geldner (1951b: 350): ‘Höre ebenso auf Śyāvāśva, der Soma auspreßt, wie du auf Atri hörtest, als er die (heiligen) Handlungen vollzog.’

of mine' is analogous to *PĀ- imām sutām sómam* 'drink this extracted soma', in that the act of listening to an invocation could be understood in terms of ingestion of a specific amount of information, the relationship between *ŚRAV- śyāvāśvasya sunvatás* 'hear Śyāvāśva who is extracting' or *ŚRAV- átreḥ kármāṇi kṛṇvatáḥ* 'hear Atri performing sacred deeds' and *PĀ- mádḥvo asyá* 'drink of the mead' is less transparent, since there is no intuitive sense in which listening to someone is analogous to partly ingesting someone. This point is of some relevance, as the distribution of the genitive and the accusative with perception verbs appears to be determined by whether the argument is animate or inanimate. This renders a direct comparison of these two types of verb phrases somewhat difficult, as there is no obvious motivation for restricting the partitive genitive to animate referents and the completive accusative to inanimate referents. It may therefore be prudent to hypothesize that the alternating use of the accusative and genitive with perception verbs is motivated by other semantic factors than the parallel use of these two case categories with ingestion verbs. Although a full discussion of these matters is beyond the scope of the present work, we may note that an important difference between ingestion verbs like *PĀ-* 'drink' and perception verbs like *ŚRAV-* 'hear, listen' lies in what kind of object argument they select. Ingestion verbs typically presuppose that their object argument consists of some inanimate consumable stuff the quantity of which can be specific or non-specific. Perception verbs, on the other hand, typically presuppose that their object argument is constituted by a distinct perceivable entity which can be inanimate or animate, but inherently denotes a specific quantity. These classes of verbs thus are associated with directly opposed implications regarding the semantic properties of the object argument, something which may be hypothesized to give rise to different sets of implicatures when these two types of verbs are combined with the accusative or genitive, respectively. From this perspective, it is significant that it is just inanimate referents which receive genitive case marking, as the process of listening to somebody, unlike the process of listening to something, typically does not entail that the situation has a well defined endpoint, and so may be defined as atelic. These considerations suggest that object arguments case-marked by the genitive tend to be generally associated with atelic verb phrases. Consequently, verb phrases with a genitive object are generally taken to be atelic in the following discussion. Note that this way of formally distinguishing atelic verb phrases differs significantly from the other ones discussed

previously in this section as it employs a morphosyntactically marked or non-canonical expression to represent a semantic category which is taken to be underspecified or unmarked.

Some readers might find this lack of unitary formal marking of atelic verb phrases problematic, perhaps particularly with regard to the postulated inverted markedness of atelic verb phrases with a genitive-marked object argument as this construction seems to violate the principle of iconicity between meaning and form. However, non-uniform marking of notionally similar categories frequently occurs in morphology as well as syntax. Moreover, it is well known that non-iconic codification of markedness oppositions is far from infrequent in inflectional paradigms.⁹⁶ Hence, the assumption that similar codification patterns might be found within the realm of argument realization would be far from implausible.⁹⁷

This section has identified a set of verb phrase types which may be classified as telic or atelic on the basis of the quantificational properties of the object argument and which will serve as primary heuristic tools for determining the aspectual properties of the Early Vedic inflectional categories in the subsequent chapters.

2.2.2 *Lexical derivation patterns*

According to the theory employed in this work, telicity is a two-tiered notion presupposing that the internal argument denotes a specific quantity and that the verb predicates an incremental relation between the situation and its internal argument, a characteristic property of change of state verbs. Activity verbs like *YODH-* 'fight' or *NAY^l-* 'lead, conduct' are taken to be underspecified in this respect and hence to be compatible with, but do not necessarily induce an incremental reading. The following examples illustrate that an activity verb like *YODH-* 'fight' can be used to highlight the process denoted by the situation as well as the result of the successful accomplishment of the situation, depending on context.

⁹⁶ I refer to Wurzel (1984: 51–60 with references) for a discussion of different ways of codifying semantic markedness relations in morphological paradigms.

⁹⁷ Cf. e.g. Beavers' (2006: 6–7) discussion of alternations like *Kim cut the pie* and *Kim cut at the pie* where it is argued that the default argument realization pattern typically is associated with an entailment which is absent in the case of the oblique or non-canonical argument realization pattern.

- (75) a. *índraś ca yád yuyudhâte áhiś ca ~*
 Indra-NOM and when fight-3.DU.PRF.MID dragon-NOM
utá ~ aparíbhyo maghávā ví
 and future-INS liberal-NOM apart
jigye //
 be.victorious-3SG.PRF
 ‘When Indra and the dragon fought, the liberal one was vic-
 torious also for later times’⁹⁸ (RV I 32.13cd after Klein 1985a:
 447)
- b. *yátra devām rghāyató víśvām áyudhya*
 where gods-ACC raging-ACC all-ACC fight-2SG.IPF
éka ít /
 one-NOM indeed
tvám indra vanúm̐r áhan //
 you-NOM IndraVOC Vanus-ACC strike-2SG.IPF
 ‘Where thou alone didst fight all the excited heavenly ones,
 O Indra, didst smash the Vanu’s’⁹⁹ (RV IV 30.5 after Klein
 1985a: 431)

Although examples like these provide some evidence that atelic verb phrases are compatible with a telic reading under certain circumstances, a verb phrase like *YODH- devām rghāyató víśvān* ‘fight all the excited gods’ should still be classified as atelic, as it does not strictly entail that the object argument undergoes a change of state. In what follows, we shall examine two morphosyntactic strategies for deriving change of state verbs from verbs underspecified in this respect, namely preverbal particles and case forms used adverbially.

The so-called preverbs are semi-autonomous preverbal prefixes which generally have a local meaning. There are about twenty preverbal prefixes in Early Vedic and although a systematic examination of their meaning-change potential is desirable, an investigation along these lines would be far beyond the scope of the present work.¹⁰⁰

⁹⁸ Cf. Geldner (1951a: 39): ‘Als Indra und der Drache kämpften.’

⁹⁹ Cf. Geldner (1951a: 458): ‘Wo du die drohenden Götter ganz allein bekämpfest und du die Vanu’s erschlugst, o Indra.’

¹⁰⁰ Cf., however, Delbrück (1888: 440–470) for a general discussion of the functions of the preverbs in Vedic, von Garnier (1909: 100–107) for a discussion of the aspectual value of *sām* ‘along, with, together’ in the Rigveda and Gonda (1962: 225–250) for a more general discussion of the function of the preverbs in the Rigveda.

In Early Vedic, like in many other languages, preverbs can either be used to emphasize a particular aspect of the meaning of a verb or to introduce an element of meaning not inherently specified by the verb. Consider the following examples.

- (76) a. *ayám yáḥ púro*
 this.here-NOM who strongholds-ACC
vibhináṭty ójasā
 apart.cleave-3.SG.PRS strength-INS
mandānáḥ śipry ándhasaḥ //
 get.drunk-PRS.PRT.NOM open.lips-NOM soma-GEN
 ‘He is the one who cleaves apart strongholds with his strength
 with open lips getting drunk with soma’¹⁰¹ (RV VIII 33.7cd)
- b. *áva abhinat kakúbhaḥ párvatānām*
 down cleave-3.SG.IPF summits-ACC mountains-GEN
 ‘He hew down the summits of the mountains’¹⁰² (RV IV 19.4d)

In the course of the previous discussion we have established that the verb *BHED-* may be classified as a causative accomplishment which has the basic meaning ‘split, cleave’. Example (76a) illustrates that the preverb *ví-* ‘apart, asunder’ can be added to this verb and that it highlights the post-terminal state implicit in the change of state denoted by the verb, thus elaborating on an element already present in its lexical specification. A similar analysis could be applied to example (76b) where the preverb *áva-* ‘down’ likewise may be taken to focus the post-terminal state. However, in this case the preverb also appears to add an element of meaning to the lexical specification of *BHED-*, namely that the object argument changes location.

With other types of verbs, preverbs can, in some cases, be shown to influence the meaning of the verb in a more radical manner. Kulikov (forthcoming) notes that preverbs often have a valency-changing effect in Early Vedic and may be used to derive transitive verbs from intransitive verbal roots, something which indicates that preverbs may

¹⁰¹ Cf. Geldner (1951b: 346): ‘Er ist es, der die Burgen mit Kraft zerspaltet, wenn er mit geöffneten Lippen sich am Saft berauscht.’

¹⁰² Cf., however, Geldner (1951a: 444), who gives the following translation of the passage, following Sāyaṇa: ‘Er schnitt die Flügel der Berge ab.’

directly influence the thematic relations inherent in the verb's lexical specification. Within the present framework, activity verbs like *YODH*- 'fight', *AD*- 'eat', *NAY*¹- 'lead, conduct' and *YĀ*- 'drive' are taken to be underspecified with regard to the change of state feature and hence do not predicate an incremental relation between the situation and its internal argument. However, certain verbal compounds derived from these and similar verbs appear to represent accomplishments rather than activities. Consider the following examples:

- (77) a. *yád vā nībhir vṛta indra ~*
 When or men-INS armies-ACC Indra-VOC
abhiyúdyās
 over.fight-2SG.PRS.SBJ
tām tváyā ~ ājīm sauśravasām
 that-ACC you-INS battle-ACC glorious-ACC
jayema //
 be.victorious-1.PL.PRS.OPT
 'Or when you'll defeat armies with (your) men, may we then win the glorious battle together with you'¹⁰³ (RV VII 98.4cd)
- b. *bhūri cid ánnā sám id*
 much-ACC even food-ACC together indeed
atti sadyáḥ //
 eat-3SG.PRS at.once
 'Indeed, he even eats up much food at once'¹⁰⁴ (RV VII 4.2d)
- c. *táva prāṇīti indra jóhuvānān*
 you-GEN conduct-INS Indra-VOC call-PRS.PRT.ACC
sám yán nīn ná ródasī
 together when men-ACC like worlds-ACC
ninétha /
 lead-2.SG.PRF

¹⁰³ Cf. Geldner (1951b: 268): 'Oder wenn du, Indra, mit (deinen) Mannen die Heerhaufen bekämpfen willst, so möchten wir mit dir die Schlacht ruhmreich gewinnen.' Elizarenkova (1995: 267) translates the passage as follows: 'Или когда ты намерен поборомъ со (своими) мужами вражеские ряды, вместе с тобой пусть выиграем мы это сражение со славой!'

¹⁰⁴ Cf. Geldner (1951b: 184): 'Gar viele Speisen ißt er auf in kurzer Frist.'

‘O Indra, when you by your guidance led the two worlds together like men calling (for help)’¹⁰⁵ (RV VII 28.3ab)

- c. hiraṇyáyena savitā ráthena ~
 golden-INS Savitar-NOM wagon-INS
 ā devó yāti bhúvanāni
 to god-NOM drive-3SG.PRS beings-ACC
 páśyan //
 look-PRS.PRT.NOM

‘God Savitar is coming with his golden wagon looking at the world’¹⁰⁶ (RV I 35.2cd)

These examples suggest that the verbal compounds *ABHÍ-YODH-* ‘defeat, conquer’, *SÁM-AD-* ‘eat up’, *SÁM-NAYÍ-* ‘lead together, unite’ and *Á-YĀ-* ‘come’, unlike their simple counterparts *YODH-* ‘fight’, *AD-* ‘eat’, *NAYÍ-* ‘lead’ and *YĀ-* ‘drive’, predicate an incremental relation between the situation and its distinguished argument. Within the present framework, these and similar cases may be accounted for in terms of lexical derivation where an adverbial particle introduces the change of state feature, resulting in a derived verb which differs in aspectually relevant respects from the base verb. Note that the verb phrase *ABHÍ-YODH-* *vṛtas* ‘defeat armies’ is atelic in spite of its being an accomplishment verb, as the object argument denotes a non-specific quantity, whereas the verb phrases *SÁM-AD-* *bhūri ánnā* ‘eat up much food’, *SÁM-NAYÍ-* *ródasī* ‘lead the two worlds together’ and *Á-YĀ-* *savitā* ‘Savitar come’ all represent change of state verbs with a specifically quantified internal argument and hence qualify as telic. It should be emphasized that this is not the only way in which preverbs may modify the lexical meaning of activity verbs and more detailed research is needed in order to clarify this area of Early Vedic morphosyntax.

Before concluding this section, we may briefly note that certain adverbial adjuncts, notably those specifying the goal of a motion, have a sim-

¹⁰⁵ Cf. Geldner (1951b: 206): ‘Als du unter deiner Führung die (um Hilfe) rufenden Welten wie die Herren zusammenscharest.’

¹⁰⁶ Cf. Geldner (1951a: 42): ‘[...] kommt Gott Savitr auf goldenem Wagen, dei Wesen beschauend.’

ilar effect on the aspectual interpretation of the verb phrase. Consider, for instance, the following examples:

- (78) a. *śukráv* *anaḍvāhāv* *āstām*
 Lights-NOM draft.animal-NOM be-3.DU.IPF
yád *áyāt* *sūryá* *grhām* //
 when drive-3.SG.IPF sun-NOM home-ACC
 ‘The two lights were draft animals when the sun drove home’¹⁰⁷
 (RV X 85.10cd)
- b. *agne* *nāya* *supáthā* *rāyé*
 Agni-VOC lead-2.SG.PRS.IMP good.way-INS wealth-DAT
asmān
 we-ACC
 ‘O Agni, lead us along the good way to wealth’¹⁰⁸ (RV I 189.1a)
- c. *asmāñ* *ava* *maghavan* *gómāti*
 we-ACC help-2.PL.PRS.IMP liberal-VOC rich.in.cows-LOC
vrajé
 cow.pen-LOC
vājriñ *citrābhir* *ūtībhiḥ* //
 endowed.with.a.mace-VOC manifold-INS help-INS
 ‘O liberal one, help us to a cow-pen which is rich in cows, O you who hold a mace, with manifold forms of help’¹⁰⁹ (RV VIII 70.6cd)

These examples illustrate that adverbial adjuncts with accusative, dative or locative case-marking represent a way of deriving secondary accomplishment predicates from activity verbs like *YĀ*- ‘drive’, *NAY^I*- ‘lead’ and *AV^I*- ‘help’. These construction patterns may be analyzed in a similar manner to the compound patterns just discussed, i.e. as a kind of lexical derivation where the change of state feature is added by adverbial adjuncts like *grhām* ‘home’, *rāyé* ‘wealth’ and *gómāti vrajé* ‘cow-pen rich in cows’. Note that the verb phrases *YĀ*- *sūryá* *grhām*

¹⁰⁷ Cf. Geldner (1951c: 268): ‘Die beiden Lichter waren die Zugtiere, als Sūryā nach dem Hause (des Soma) verzog.’

¹⁰⁸ Cf. Geldner (1951a: 269): ‘Agni, für uns auf gutem Wege zu Reichtum.’

¹⁰⁹ Cf. Geldner (1951b: 395): ‘Steh uns bei, Gabenreicher, wenn es sich um rindergefüllte Hürde handelt, mit deinen wunderbaren Hilfen, Keulenträger!’

‘the sun drive home’, *NAV^l- rāyē asmān* ‘lead us to wealth’ and *AV^l-asmāñ gómati vrajé* ‘help us to a cow-pen rich in cows’ all have a specifically quantified internal argument and hence qualify as telic.

This concludes our discussion of the relationship between *Aktionsart* and morphosyntax in Early Vedic. The subsequent chapters shall examine the aspectual properties of the Early Vedic tense and mood categories.

CHAPTER THREE

THE PRESENT SYSTEM

Chapter Two discussed the relationship between morphosyntax and lexical aspect in Early Vedic. This chapter takes the analysis one step further, exploring the semantic properties of the inflectional categories belonging to the Present Paradigm. The central aim of this chapter is to establish to what extent the Present System is intra-paradigmatically coherent and what, if any, semantic properties the various morphological categories have in common. Section 3.1 examines the various readings associated with the Present Indicative and Section 3.2 those of the Imperfect. Section 3.3 scrutinizes the uses of the non-indicative modal categories belonging to the Present Paradigm and the Present Participle is briefly discussed in section 3.4. Section 3.5 outlines the semantic properties of the Present stem.

3.1 *The Present Indicative*

This section examines the typologically most salient readings of the Early Vedic Present Indicative. From scholarly tradition one gathers that this category can be used with at least four different temporal readings (cf. e.g. Delbrück 1876: 89, 1888: 277–279, Macdonell 1916: 340, Renou 1952: 365, Hoffmann 1967: 116ff.). Specifically, it can be used to denote a situation which is taking place at the time of the utterance, to express that a situation takes place on a regular basis, to denote a situation which is expected to take place in the immediate future and to denote a past situation. In the following, each of these readings, as well as a couple of other, context-dependent variants, will be examined in turn.

The most salient function of the Early Vedic Present Indicative is to express that a situation is taking place as the speaker processes the utterance, typically focusing an internal interval of a single specific situation. The examples in (79) illustrate that Present Indicative forms of atelic as well as telic predicates can be used with a present progressive-processual reading.

- (79) a. purūrūṇā cid dhy ásty ávo
 far.and.wide even for be-3.SG.PRS grace-NOM
 nūnám vām varuṇa /
 now you-GEN Varuṇa-VOC
 mítra váṁsi vām
 Mitra-VOC win-1.SG.AOR.INJ you-GEN.DU
 sumatím //
 favour-NOM
 ‘For even though your grace is now far and wide, O Mitra,
 O Varuṇa, I strive for your favour’¹ (RV V 70.1)
- b. kvà nūnám sudānavo mādathā
 where now generous-VOC be.inebriated-2PL.PRS
 vṛktabarhiṣaḥ /
 whose.grass.is.gathered-VOC
 ‘Where are you rejoicing now, O Bounteous Ones, for whom
 the sacrificial grass is gathered’² (RV VIII 7.20ab)
- c. prá nūnám bráhmaṇas pátir mántram
 forth now Brahmaṇaspati-NOM sacred.word-ACC
 vadaty ukthyām /
 say-3SG.PRS of.praise-ACC
 ‘Brahmaṇaspati is now uttering a sacred word of praise’³ (RV
 I 40.5ab)
- d. śísīte nūnám paraśúm svāyasám
 sharpen-3SG.PRS now axe-ACC of.good.metal-ACC
 yéna vṛścād étaśo
 which-INS cut-3SG.PRS.SBJ brilliant-NOM
 bráhmaṇas pátiḥ //
 Brahmaṇaspati-NOM
 ‘Brilliant Brahmaṇaspati is now sharpening the axe of good
 metal with which he shall cut asunder’⁴ (RV X 53.9cd)

¹ Cf. Geldner (1951b: 76): ‘Da ja eure Gnade gewiß mehr als ausgedehnt ist, o Varuṇa, so möchte ich eure Gunst gewinnen, o Mitra.’

² Cf. Geldner (1951b: 300): ‘Wo ergötzet ihr euch jetzt, ihr Gabenschöne, für welche das Barhis herumgelegt ist.’

³ Cf. Geldner (1951a: 50): ‘Jetzt hebt Brahmaṇaspati das zum Preis bestimmte Dichterwort.’

⁴ Cf. Geldner (1951c: 216): ‘Er scärft jetzt den Beil aus gutem Erze, mit dem buntfarbige (?) Brahmaṇaspati behauen soll.’

Similar examples are abundant.⁵ In the examples cited above, the Present Indicative forms *ásti* ‘is’, *mádatha* ‘rejoice, are rejoicing’, *vadati* ‘utters, is uttering’ and *śísīte* ‘sharpens, is sharpening’ denote a single specific situation which is ongoing at speech time, as indicated by the temporal adverb *nūnám* ‘now’. The verb phrases AS- *purūrūṇā* ‘be far and wide’ and MAD- ‘rejoice’ represent atelic state predicates and the verb phrases VAD^I- *mántram ukthyám* ‘utter a sacred word of praise’ and ŚĀ- *paraśúmñ svāyasám* ‘sharpen a/the axe of good metal’ represent telic predicates. The use of the Present Indicative illustrated in (79) presupposes that it is compatible with a present progressive-processual interpretation, i.e. the aspectual relation ‘reference time is properly included in the event time’ ($t' \subset t_E$) and the temporal relation ‘evaluation time included in reference time’ ($t_0 \subseteq t'$), further presupposing that the cardinality of the situation is one ($|e|=1$). The time-relation underlying these examples is schematically represented in Figure 3.1 by means of example (79d).

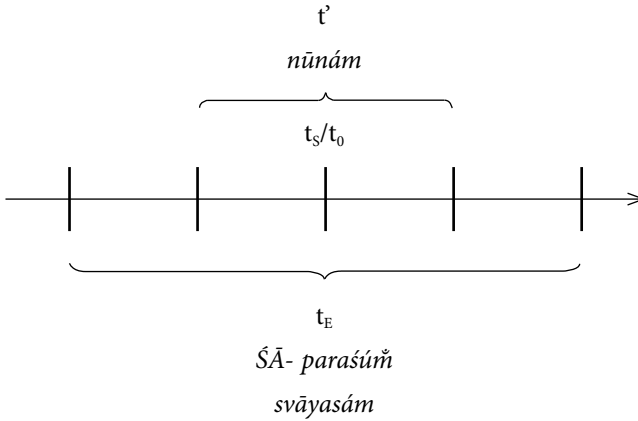


Figure 3.1: A time-relational analysis of the Present Indicative form in RV X 53.9cd

⁵ Cf. e.g. RV I 145.1, I 188.1, III 47.4, IV 59.1, VI 18.3, VII 67.3, VII 82.6, VIII 81.8 X 87.6, X 96.11, X 106.1 etc.

The Present Indicative is also often used with a general or ‘timeless’ reading, expressing that a situation of the type named by the verbal predicate occurs regularly over an indefinite period of time. This reading is particularly clear when a Present Indicative form is modified by iterative adverbial constructions like *divé-dive* ‘day by day’ or universal quantifier adverbs like *sádā* ‘always’, *viśvadānīm* ‘always, at all times’ and *viśvāhā* ‘always, at all times’. The examples in (80) illustrate this use of the Early Vedic Present Indicative.

- (80) a. *yám devāsas trír áhann āyájante*
 who-ACC gods-NOM thrice day-LOC honour-3PL.PRS
divé-dive váruṇo mitró agníḥ /
 day.by.day-LOC Varuṇa-NOM Mitra-NOM Agni-NOM
sá ~ imám yajñám mádhumantam
 the-NOM this-ACC sacrifice-ACC sweet-ACC
kṛdhī nas
 make-2SG.AOR.IMP we-DAT
tánūnapād gṛtáyoniṃ vidhántam //
 Tanūnapāt-VOC abiding.in.ghee-ACC worship-PRS.PRT.ACC
 ‘O Tanūnapāt, whom the gods Varuṇa, Mitra, Agni honor thrice
 a day, every day, make this sacrifice sweet for us, (see to it that)
 the worshipper abides in ghee!’⁶ (RV III 4.2)
- b. *tvám tám agne amṛtatvá*
 you-NOM that-ACC Agni-VOC immortality-LOC
uttamé
 highest-LOC
mártam dadhāsi śrávase divé-dive /
 mortal-ACC place-2.SG.PRS glory-DAT day.by.day-LOC
 ‘O Agni, to attain glory you place the mortal man in the
 highest immortality, day by day’⁷ (RV I 31.7ab)
- c. *vṛtrāṇy anyáḥ samithéṣu jíghnate*
 enemies-ACC other-NOM battles-LOC smite-3SG.PRS

⁶ Cf. Geldner (1951a: 339): ‘Den die Götter, Varuṇa, Mitra, Agni, dreimal am Tag alltäglich erbitten, mache du dieses Opfer von uns süß, (mach), daß der Verehrer auf Schmalz gebettet ist!’

⁷ Cf. Geldner (1951a: 34): ‘Du Agni bringst den Sterblichen zur höchsten Unsterblichkeit, zu Ruhm Tag für Tag.’

vratāny anyó *abhi rakṣate*
 ordinances-ACC other-NOM onto protect-3SG.PRS
 sādā /
 always
 ‘One smites enemies in battles, another always watches over
 the ordinances’⁸ (RV VII 83.9ab)

d. ná te gíro ápi mṛṣye
 not you-GEN songs-ACC on forget-1SG.PRS
 turāsyā
 powerful-GEN
 ná suṣṭútīm asuryāsyā
 not beautiful.hymn-ACC divinity-GEN
 vidvān /
 know-PRF.PRT.NOM
 sādā te nāma svayaśo
 always you-GEN name-ACC glorious-VOC
vivakmi //
 announce-1SG.PRS
 ‘I do not forget the songs of praise for you, the powerful, nor
 the beautiful hymn for the divinity, I who know. I always
 mention your name, O glorious one’⁹ (RV VII 22.5)

Examples like these are fairly common.¹⁰ The examples in (80) show that Present Indicative forms of atelic as well as telic predicates are compatible with a multiple event or ‘iterative-habitual’ reading. Most notably, the predicates *Ā-YAJ- yām* ‘whom honour’ and *ABHĪ-RAKṢ-vratāni* ‘watch over ordinances’ both may be classified as atelic, as neither of them predicate an incremental relation between the situation and the internal argument, which in the second case is also expressed by a bare plural noun phrase. In contrast, the predicates *DHĀ- tām mātām amṛtatvá uttamé* ‘place the mortal man in highest

⁸ Cf. Geldner (1951b: 255): ‘Der eine (von euch) erschlägt in Kämpfen die Feinde, der andere wacht beständig über den Gesetzten.’

⁹ Cf. Geldner (1951b: 202): ‘Nicht vergesse ich die Lobreden auf dich, den Höherstehenden, nicht den Lobpreis auf den Asurischen, ich der Kundige. Immer verkünde ich deinen Namen, du Selbstherrlicher.’

¹⁰ Cf. e.g. RV I 1.7, I 22.20, I 125.5, I 164.40, II 30.3, IV 50.8, VI 45.33, VI 52.5, VIII 4.9, VIII 94.3, X 25.3 etc.

immortality' and VAC- *te nāma* 'announce your name' qualify as telic. In the first case, the predicate has a specifically quantified internal argument which is incrementally related to the situation denoted by the accomplishment verb *DHĀ*- 'place', the locative goal phrase *amṛtatvé* 'in immortality' explicitly specifying an endpoint which measures out the situation. In the second case, the accomplishment verb VAC- 'announce' likewise predicates an incremental relation between the situation and the specifically quantified object argument. Note that the Present Indicative under this reading presupposes that each instantiation of the situation is completed and hence focuses the whole situation, unlike the reading instantiated in (79) which focuses an internal interval of the situation. This would seem to indicate that the Early Vedic Present Indicative is compatible with the aspectual relation 'reference time coextensive with event time' ($t' = t_E$), something which demonstrates that it cannot be a pure progressive category ($t' \subset t_E$). This conclusion is corroborated by the fact that progressive categories are typically incompatible with a multiple event reading (cf. e.g. Ö. Dahl 1985: 90ff.). However, it could still either represent an imperfective or a neutral category, as both these categories are compatible with both of the readings discussed so far.

Moreover, Early Vedic Present Indicative forms of speech act verbs are frequently used in so-called 'performative sentences'. Within the framework adhered to in this work, performative sentences are taken to represent a type of self-referring assertive clause, which have three slightly different, yet interrelated properties. First, the utterance of a performative sentence results in what may be regarded as a purely linguistic event, namely the addition of a new sentence to the Common Ground, something which may be taken to be the basic function of assertive clauses in general and hence regard as a defining characteristic of the general clause type of which performative sentences form a subtype (cf. also Portner 2005, 2007). Second, performative sentences are self-referring, in the sense that they typically contain a first person form of a speech act verb or an equivalent construction which at the same time denotes the sentence and represents an instance of the sentence. Third, the utterance of a performative sentence simultaneously causes what may be called an extra-linguistic event, i.e. an event which is outside the realm of linguistics proper, a function which may be taken to represent the defining characteristic of performative sentences as opposed to other types of self-referring, assertive clauses (cf. e.g. Austin 1962, Ginet 1979, Harnish 1988/1993, 2007 and Searle 1989 and elsewhere).

This definition of performative sentences entails that the speaker must be included in the reference of the subject argument, that the situation takes place at speech time and that the sentence has an unmarked modal force.¹¹ The examples in (81) illustrate the performative use of the Early Vedic Present Indicative.

- (81) a. *pr̥cchāmi* *tvā* *pāram* *ántam*
ask-1SG.PRS you-ACC high-ACC end-ACC
pr̥thivyāḥ
earth-GEN
pr̥cchāmi *yātra* *bhúvanasya* *nābhiḥ* /
ask-1SG.PRS where world-GEN navel-NOM
pr̥cchāmi *tvā* *vīṣṇo* *ásvasya* *rétaḥ*
ask-1SG.PRS you-ACC bullish-GEN horse-GEN semen-ACC
pr̥cchāmi *vācāḥ* *paramám* *vyòma* //
ask-1SG.PRS speech-GEN highest-ACC heaven-ACC
'I ask you about the high end of the earth, I ask where the
navel of the world is. I ask you about the semen of the stallion.
I ask about the highest level of speech'¹² (RV I 164.34)
- b. *prāti* *va* *enā* *nāmasā* ~
toward you-ACC this.here-INS salutation-INS
ahám *emi*
I-NOM go-1.SG.PRS
sūkténa *bhikṣe* *sumatīm*
song.of.praise-INS beg-1.SG.PRS.MID benevolence-ACC
turāṇām /
strong-GEN
'I am approaching you with this salutation here. With a song
of praise I beg for mercy'¹³ (RV I 171.1)
- c. *prá* *tát* *te* *adyá* *śipiviṣṭa* *nāmā*
forth this-ACC you-GEN today Śipiviṣṭa-VOC name-ACC

¹¹ I refer to Dahl (2008b) for a more thorough discussion of the semantics and pragmatics of performative sentences in the Rigveda and Atharvaveda.

¹² Cf. Geldner (1951a: 234): 'Ich frage dich nach der äußersten Grenze der Erde, Ich frage dich, wo der Nabel der Welt ist? Ich frage dich nach dem Samen des Hengstes, ich frage dich nach dem höchsten Inbegriff der Rede.'

¹³ Cf. Geldner (1951a: 249): 'Mit dieser Verbeugung wende ich mich an euch, mit schönem Liede bitte ich um Gnade der Mächtigen.'

aryáh śaṁsāmi vayúnāni
 lord-GEN extol-1SG.PRS sacred.rules-ACC
 vidvān /
 knowing-NOM
 'O Śipiviṣṭa, I extol this name of yours, of the lord, today,
 knowing the sacred rules'¹⁴ (RV VII 100.5ab)

- d. índrā nv àgní ávasā ~ ihá
 Indra-ACC now Agni-ACC help-INS here
 vajrínā vayāṁ devā havāmahe //
 two.mace.holders-ACC we-NOM god-ACC call-1.PL.PRS
 'We now invoke Indra and Agni hither for help, the two gods
 who have a mace'¹⁵ (RV VI 59.3cd)

The performative use of the Early Vedic Present Indicative is fairly commonly met with, something which hardly strikes one as surprising, as this clause type is very well represented in the Rigveda.¹⁶ The predicates underlying the first person Present Indicative forms *prcchāmi* 'I ask', *bhikṣe* 'I beg', *prá śaṁsāmi* 'extol' and *havāmahe* 'we invoke' in the examples above may all be taken to denote a situation which consists of doing something by saying something. As briefly suggested in Chapter One, the performative use of a given morphosyntactic category minimally presupposes that it is compatible with a coextension relation between reference time, event time and evaluation time ($t' = t_E = t_0$). Moreover, performative sentences presuppose that the evaluation time coincides with speech time ($t_0 = t_s$) and that the cardinality of the situation is one ($|e| = 1$). From this perspective, the fact that the Early Vedic Present Indicative is frequently used in performative sentences may be taken as yet another indication that it does not represent a properly progressive category, which, within the present framework, would be inherently incompatible with the aspectual relation presupposed by performative sentences. Although progressive categories in some languages are marginally compatible with a performative reading, they tend to be excluded from this environment if a more suitable construction is available in the language. In the following chapters we shall see that the Present Indicative only represents one among several

¹⁴ Cf. Geldner (1951b: 270): 'Ich verkünde heute, o Śipiviṣṭa, diesen Namen von dir, dem hohen Herrn, der ich bescheid weiss.'

¹⁵ Cf. Geldner (1951b: 160): 'Indra und Agni, die beiden keulentragenden Götter rufen wir mit ihrer Gnade hierher.'

¹⁶ Cf. also e.g. RV V 56.8, VIII 10.3, VIII 76.1, VIII 94.10;12, X 57.3, X 79.6 etc.

morphological categories which are used in performative sentences in Early Vedic (cf. also Dahl 2008b). It is therefore reasonable to take this piece of evidence as yet another indication that the Early Vedic Present Indicative does not represent a progressive category, but rather denotes the general imperfective or neutral aspect. As was argued to be the case with the habitual reading, both these aspectual types are in principle compatible with the aspectual relation presupposed by the performative reading. The exact aspectual reference of the Early Vedic Present Indicative thus remains somewhat unclear given the evidence we have considered thus far.

There is, however, some evidence that the Present Indicative represents a neutral rather than an imperfective category. As illustrated by the examples in (82), two or more Present Indicative forms in coordinate clauses can either denote two or more temporally overlapping situations or two or more immediately adjacent, temporally sequential situations.

- (82) a. *sunvánti* *sómaṃ* *rathiráso*
 extract-3PL.PRS soma-ACC riding.in.a.chariot-NOM
ádrayo
 pressing.stones-NOM
nír asya *rásaṃ* *gaviṣo*
 out it-GEN sap-ACC desirous.of.milk-GEN
duhanti *té /*
 milk-3PL.PRS they-NOM
 ‘The swift pressing-stones are extracting soma, they are milking
 out its sap which is desirous of milk’¹⁷ (RV X 76.7ab)
- b. *ád* *rdhnoti*
 and.then make.successful-3SG.PRS
haviṣkr̥tim
 preparation.of.the.oblation-ACC
prāñcaṃ kṛṇoty *adhvarám /*
 forward make-3SG.PRS sacrifice-ACC
 ‘And then he brings the preparation of the oblation to success,
 leading the ceremony forward’¹⁸ (RV I 18.8ab)

¹⁷ Cf. Geldner (1951c: 257): ‘Zu Wagen fahrend pressen die Steine den Soma aus; sie melken den Saft dieses (Soma) aus, der nach der (Kuh)milch verlangt.’

¹⁸ Cf. Geldner (1951a: 18): ‘Und er macht das Opferwerk erfolgreich, er bringt die heilige Handlung vorwärts.’ Witzel and Gotō (2007: 35) translate the passage as follows: ‘Dann macht er die Bereitung der Opfergabe erfolgreich, er bewegt die

- c. prá rájā vācam janáyann
 forth king-NOM speech-NOM produce-PRS.PRT.NOM
 asiṣyadad
 flow-3.PL.AOR
 apó vásāno abhí gā
 waters-ACC wear-PRS.PRT.NOM towards cows-ACC
iyakṣati /
 go-3.SG.PRS
ṛbhñāti riprām ávir asya
 take-3.SG.NOM dirt-ACC soma.strainer-NOM he-GEN
 tānvā
 woven-NOM
 śuddhó devānām úpa yāti niṣkṛtām //
 cleansed-NOM.SG gods-GEN to drive-3.SG.PRS meeting-ACC
 ‘The King (Soma) has flown forth, producing speech. Clothed
 in water he approaches the cows (i.e. the milk). The woven
 (strainer) removes the dirt from him. Cleansed he comes to a
 meeting with the gods’¹⁹ (RV IX 78.1)
- d. rájā samudrām nadyò ví gāhate
 king-NOM ocean-ACC rivers-ACC apart plunge-3SG.PRS
 ’pām ūrmīm śacate sīndhuṣu
 waters-GEN wave-ACC follow-3SG.PRS streams-LOC
śritāḥ /
 lain-NOM
 ‘The king plunges into the ocean, the rivers. He follows the
 waves of the waters, hidden in the streams’²⁰ (RV IX 86.8ab)

Both these readings appear fairly frequently.²¹ In the first pair of examples, the Present Indicative forms *sunvanti* ‘they extract, are extracting’

Opferhandlung vorwärts.’ Cf. also Klein (1985b: 131): ‘And then he brings the preparation of the oblation to success, he leads the ceremony forward.’

¹⁹ Cf. Geldner (1951c: 72): ‘Die Rede hervorbringend ist der König (Soma) hervorgeflossen, in Wasser sich hüllend strebt er den Kühen zu. Das Schaf nimmt sein Unreines, die an seinem Leibe haftenden (Stacheln) weg. Rein geht er in die Gesellschaft der Götter’.

²⁰ Cf. Geldner (1951c: 79): ‘Der König taucht in das Meer ein, in die Flüsse; er folgt der Wasserwelle, in den Strömen versteckt.’

²¹ Cf. e.g. RV I 6.1, III 8.4, V 28.3, VII 81.1, VIII 13.4, IX 89.4, X 34.3 for more examples of the overlapping reading and RV I 164.2, III 8.5, V 63.5, VI 13.3, IX 85.7, IX 88.1, X 28.3 for more examples of the sequential reading.

and *duhanti* 'they milk, are milking' may be interpreted as denoting two temporally overlapping situations, as may the forms *ṛdhnoti* 'makes successful, is making successful' and *kṛṇoti* 'makes, is making'. In the second pair of examples, on the other hand, the Present Indicative forms *iyakṣati* 'approaches', *grbhñāti* 'takes' and *úpa yāti* 'comes' denote a group of situations which are not represented as temporally overlapping, but rather as immediately adjacent, as do the forms *gāhate* 'plunges, is plunging' and *sacate* 'follows, is following'.

In many types of discourse, the context-initial sentence provides a 'left boundary' for the reference time interval. The situations denoted by each following sentence systematically relate to that left boundary in slightly different ways, depending on the aspectual properties of the sentence. From our perspective, the temporally overlapping reading may be regarded as a contextually determined variant of the progressive-processual reading, under which the Present Indicative is used to focus an internal interval of the situation denoted by the predicate, implying that the reference time is properly included in event time ($t' \subset t_E$). So far, the examples in (82) present us with nothing new. However, the present sequential reading, illustrated by (82c) and (82d), may turn out to be somewhat more significant. It was noted in Chapter One that a sequential interpretation typically arises when two or more situations are represented as being terminated within the same reference time interval, i.e. the aspectual operators in the sentence must be compatible with the aspectual relation 'event time properly included in reference time' ($t_E \subset t'$). The fact that the Present Indicative is compatible with a progressive-processual ($t' \subset t_E$) as well as a completive-sequential ($t_E \subset t'$) reading is a strong *prima facie* indication that it denotes the neutral aspect ($t' \otimes t_E$) rather than the general imperfective aspect ($t' \subseteq t_E$) which would be incompatible with a completive-sequential interpretation.

It might be objected that the present sequential reading could be analyzed as a contextually determined variant of the aspectual relation presupposed by the iterative-habitual and the performative readings ($t' = t_E$). This assumption would have the advantage of postulating a more restricted set of available context-dependent readings for the Early Vedic Present Indicative. However, it is significant that we find a similar vagueness in subordinate clauses, where the Early Vedic Present Indicative is partly used to denote a situation which is temporally overlapping with the situation denoted by the verbal predicate in the main clause and partly may be interpreted as denoting a situation

which has been terminated prior to the situation denoted by the verb in the main clause. Consider the following examples.

- (83) a. *úd u tyád darśatām vāpur*
 up PTC this-NOM beautiful-NOM form-NOM
divá eti pratihvaré /
 heaven-GEN go-3SG.PRS slope-LOC
yád im āśúr váhati
 when he-ACC courser-NOM carry-3SG.PRS
devá étaśo
 heavenly-NOM Etaśa-NOM
vísvasmai cākṣase áram //
 all-DAT see-INF readily
 ‘This beautiful wonder is rising on the vault of heaven while the heavenly race-horse Etaśa is carrying it readily for everyone to see’²² (RV VII 66.14)
- b. *yadā satyām kṛṇuté manyúm índro*
 when real-ACC make-3SG.PRS rage-ACC Indra-NOM
vísvaṃ dṛlḥām bhayata
 all-NOM firm-NOM become.afraid-3SG.PRS
éjad asmāt //
 moving-NOM he-ABL
 ‘When Indra is venting his anger, every firm and moving (being) becomes afraid of him’²³ (RV IV 17.10cd)
- c. *yád arjuna sārameya datāḥ piśaṅga*
 when white-VOC of.Saramā-VOC tooth-ACC tawny-VOC
yácchase /
 raise-2SG.PRS
ví ~ iva bhrājanta ṛṣṭāya
 apart like shine-3PL.PRS spears-NOM
úpa srákveṣu bāpsato ní śú
 towards jaws-LOC chewing-GEN into well
svapa //
 fall.asleep-2SG.PRS.IMP

²² Cf. Geldner (1951b: 241): ‘Dort geht jenes sehenswerte Schauspiel am Rande (?) des Himmels auf, wenn ihn der Renner zieht, der göttliche Etaśa, pünktlich zu schauen für jedermann.’

²³ Cf. Geldner (1951a: 439): ‘Wenn Indra seinen Eifer wahr macht, dann fürchtet sich vor ihm alles Feste und Bewegliche.’

‘When you, O white and tawny Arjuna, son of Saramā, bare your teeth, they shine like spears towards the jaws of the snapping (dog). Fall fast asleep!’²⁴ (RV VII 55.2)

- d. yád góbbhir indo camvòḥ
 when cows-INS drop-VOC soma.vessels-LOC
samajyása
 be.brought.together-2SG.PRS
 ā suvānāḥ soma
 at be.extracted-PRS.PRT.NOM Soma-VOC
 kaláśeṣu sīdasi //
 pitchers-LOC sit.down-3SG.PRS
 ‘O drop, when you, fully extracted, have been blended with milk, you (then) sit down in the pitchers, O Soma’²⁵ (RV IX 86.47cd)

Both of these types of examples are frequent in Early Vedic.²⁶ In the first example the Present Indicative form *váhati* ‘carries, is carrying’ in the subordinate clause denotes a situation which is temporally overlapping with the situation denoted by the form *eti* ‘goes, is going’ in the main clause. A similar relation seems to hold between the forms *kr̥ṇuté* ‘makes, is making’ and *bhayate* ‘become afraid’ in the second example. In the third and fourth examples, the Present Indicative forms *samajyáse* ‘you are brought together’ and *yácchase* ‘you raise’ in the relative clauses seem to denote situations which have been terminated prior to the situations denoted by the corresponding forms *sīdasi* ‘sit, are sitting’ and *bhrājante* ‘shine, are shining’ in the main clauses. Anyone familiar with domesticated *canids* will recognize the comparison of a dog’s teeth with spears to be quite apt, but will also agree that this similarity only holds when the teeth are completely bare. Similarly, the blending of the soma with milk temporally precedes its being poured into a pitcher. Whatever the nature of this juice, its first extraction had a strong and sharp taste and it was customary to blend

²⁴ Cf. Geldner (1951b: 230): ‘Wenn du, weiß-brauner Saramā-sohn die Zähne fleischest, so blinken sie wie Speere im Gebiß des Schnappenden. Schlafe fein ein!’

²⁵ Cf. Geldner (1951c: 84): ‘Wenn du Saft in den beiden Camügefäßen mit Kuh(milch) verschmolzen wirst, dann setzest du dich ausgepreßt in die Krüge.’

²⁶ Cf. e.g. RV I 37.13, I 44.12, I 55.4, I 74.7, III 55.17, V 15.4, VI 75.1, IX 94.1, X 114.10 for more examples of the overlapping reading and RV II 34.8, V 3.2, V 7.3, V 44.12, VI 2.3, VIII 4.2 for more examples of the sequential reading.

it with milk or honey to sweeten it before it was drunk (cf. e.g. Wasson 1971, Staal 2001).

Examples like these indicate that Present Indicative forms are vague between a progressive-processual and a completive-sequential reading in temporal adverbial clauses. The behavior of these forms is parallel to their behavior in coordinate clauses discussed above. The fact that the Present Indicative sometimes assumes a completive-sequential reading in subordinate clauses is a strong *prima facie* indication that it denotes the neutral rather than the imperfective aspect. Simplifying matters somewhat, relative conjunctions like *yád*, *yadā́* ‘when’ may be regarded as a type of operator which indicate that the tense forms in their scope have a bound variable reading, that is, that the evaluation time parameter is not anchored in speech time but in the reference time of the main clause.²⁷ In the cases under discussion this effect is obscured by the fact that the reference time of the main clause includes evaluation time which, in turn, is identified with speech time. However, in cases where the reference time of the main clause is prior to speech time, this effect is more easily observable. Consider the following examples:

- (84) a. *ubhā́ yád asya janúṣaṃ yád*
 both-NOM when he-GEN birth-ACC when
ínvata
 incite-3SG.PRS
ád id yáviṣṭho abhavad
 and.right.then youngest-NOM become-3SG.IPF
ghṛṇā́ śúciḥ //
 heat-INS shining-NOM
 ‘When both incited/?incite his birth, then indeed the youngest one became shining with heat’²⁸ (RV I 141.4cd)
- b. *yadā́ valáśya píyato jásuṃ*
 when Vala-GEN revile-PRS.PRT.GEN hiding.place-ACC
bhéd
 split-3SG.AOR.INJ

²⁷ I refer to Hettrich (1988) and Viti (2007) for a discussion of subordination strategies in Early Vedic.

²⁸ Cf. Geldner (1951a: 198): ‘Wenn beide seine Geburt zuwege bringen, da ward der Jüngste hellstrahlend im Glut.’ Witzel and Gotō (2007: 264) translate the passage as follows: ‘Wenn die beiden seine Geburt—wenn (sie überhaupt)—antreiben, erst dann wurde der Jüngste reinstrahlend an Glut.’

bṛhaspátir agnitápobhir arkáih /
 Bṛhaspati-NOM hot.as.fire-INS songs-INS
 dadbhír ná jihvá páriṽṣtam²⁹
 teeth-INS like tongue-INS besieged/prepared-ACC
 ádad
 take-3SG.AOR
 āvír nidhīm̐r akṛṇod usrīyāṇām //
 manifestly treasures-ACC make-3SG.IPF reddish-GEN
 ‘When Bṛhaspati destroyed obnoxious Vala’s hiding-place
 with songs hot as fire, he took the besieged (hiding-place)
 just like the tongue (takes) prepared (food) with the teeth. He
 revealed the treasures of the reddish ones’³⁰ (RV X 68.6)

According to the analysis proposed here, the evaluation time of the Present Indicative form *invate* ‘incite’ and the Aorist Injunctive form *bhéd* ‘split’ in the relative clauses is anchored in the past reference time of the main clause.³¹ Formally speaking, the evaluation time parameter has a bound variable reading in cases like these, the finite form having an anaphoric rather than a deictic reading.³² *Mutatis mutandis*, the same applies to the examples in (83).

Given this, we may now proceed to what may be considered as the crucial result of the fact that the Early Vedic Present Indicative is

²⁹ Note that the Past Passive Participle form *páriṽṣta-* can be derived from *PÁRI-VEṢ-* ‘beset, besiege’ as well as *PÁRI-VEṢ-* ‘prepare, offer (food)’. It is tempting to suggest that this genuine ambiguity has been exploited as a pun, a well-known literary device in the later Kāvya literature, with which the Rīgveda in fact has a remarkable number of stylistic features in common (cf. Jamison 2007: esp. 115–118). My translation of this passage tries to capture this pun.

³⁰ Cf. Geldner (1951c: 244): ‘Als Bṛhaspati das Gefängnis des Hohn bietenden Vala erbrach mit seinen wie Feuer glühenden Zauberlandern, da packte (aß) er (sie) wie die Zunge mit den Zähnen die angerichtete (Speise). Er brachte den Schatz der Kühe ans Licht.’

³¹ On the other hand, the relative clause in such cases functions as a frame adverbial, setting the scene, so to speak, for the reference time of the main clause, as wisely pointed out by Grønn (2007: 521) on whose analysis of the relative past reading of the Russian Perfective and Imperfective the present analysis heavily depends.

³² As will be apparent from the following discussion, this description is not accurate in the case of the Aorist Injunctive form *bhéd* ‘split’ in (84b), as the Early Vedic Injunctive by all probability represents a category inherently lacking any temporal or modal specification (cf. Kiparsky 1968, 1998, 2005). Being radically underspecified with regard to tense and modality, the Injunctive may be hypothesized to pick up its temporal and modal interpretation from the immediately surrounding context and to be assigned a default tense and mood value, probably present tense ($t_0 \subseteq t$) and neutral/indicative mood, unless otherwise specified by the context.

compatible with a sequential reading in subordinate clauses. Assuming that relative conjunctions bind the evaluation time variable to the reference time of the main clause, the situation denoted by the verbal predicates in the relative clauses in (83) provides a left boundary for the reference time of the main clause, hence minimally occupying its initial subinterval. However, in cases where the Present Indicative has a progressive-processual interpretation, this initial subinterval coincides with the internal interval of the situation focused by the progressive aspect ($t' \subset t_E$). In cases where the Present Indicative has a completive-sequential interpretation, the initial subinterval of the reference time interval comprises the entire event time which then is represented as properly included in reference time ($t_E \subset t'$). Significantly, this type of alternating interpretation pattern in *when*-clauses represents one of the most central criteria identified by Smith (1997) for distinguishing neutral viewpoint operators from imperfective and perfective ones. Whereas namely imperfective operators only show the overlapping reading, perfective operators only yield the sequential reading in this kind of context. The previous discussion represents an attempt to give a formally justified analysis of this difference in behavior. In any case, the fact that Present Indicative forms are vague between an overlapping and a sequential interpretation in relative clauses can be straightforwardly accounted for by assuming that it denotes the neutral aspect, hence predicating a general overlap relation between reference time and event time ($t' \otimes t_E$). This, in turn, can either be interpreted as the implicature that event time properly includes reference time ($t' \subset t_E$) or as the implicature that reference time properly includes event time ($t_E \subset t'$).

There is at least one potentially strong counterargument against the claim that the Present Indicative denotes the neutral aspect. Recall from the discussion in Chapter Two that instantaneous achievement verbs tend not to select a regular Present stem, but instead select a Perfect stem with a stative present meaning (cf. also Kiparsky 1998: 33, Kümmel 2000: 69–70 and Chapter Five below). This lexical restriction could be accounted for by assuming that the Present Indicative denotes the imperfective aspect, as one could easily imagine that the punctual semantics of the verbs under consideration are less than optimally compatible with an imperfective operator among the salient readings of which we find a progressive-processual interpretation. It is not immediately clear how this restriction might be accounted

for if we assume that the Present Indicative denotes the neutral aspect.

Although advocates of this position may seem to provide a strong argument in favor of the assumption that the Present Indicative denotes the imperfective aspect, they must confront some rather inconvenient facts. It is well known that many of the Early Vedic stative present Perfect stems of instantaneous achievement verbs are in the process of becoming assimilated with and, at least to some extent, incorporated into the Present system as indicated by the occasional occurrences of Perfect forms with primary endings and Present stem accentuation (cf. e.g. Kümmel 2000: 59–61). I have argued elsewhere that one of the typologically most significant differences between the Early Vedic verbal system and that of the following chronological stage, Early Middle Vedic, concerns the aspectual semantics of the Perfect, which has a basic anterior meaning in Early Vedic and a perfective past meaning in Early Middle Vedic (cf. Dahl 2009b, 2010a). As will be argued in Chapter Five below, this semantic change is already perceptible in the later parts of the Rgveda. Although a full evaluation of the relevant data is far beyond the scope of this work, the assumption that the Early Vedic Present Indicative has a neutral aspectual character and therefore is in principle compatible with instantaneous achievements allows us to regard these morphological changes as epiphenomena of the ongoing change in the semantic properties of the Perfect stem.

Interestingly, Present Indicative forms of telic predicates are occasionally used to denote a situation which, strictly speaking, appears to be located after the time of the utterance, yielding a conative-preliminary meaning as illustrated by the examples in (85). Note, however, that examples of this type are rare, something which probably reflects the fact that Early Vedic has several semantically more specific verbal categories with a future time reference, particularly the Future in *-sya-* and the Subjunctive.

- (85) a.

yád	ánti yác	ca	dūraké
which-NOM	near which-NOM	and	far
bhayám	vindáti	mám	ihá /
fear-NOM	find-3SG.PRS	I-ACC	here
pávamāna	ví	táj	jahi //
Pavamāna-VOC	apart	that-ACC	smite-2SG.PRS.IMP

‘A danger near or far away which finds me here, O Pavamāna, destroy it!’³³ (RV IX 67.21)

- b. *īyúṣ* *ṭé* *yé* *pūrvatarām*
 go-3PL.PRF those-NOM who-NOM earlier-ACC
ápaśyan
 see-3PL.IPF
viuchántīm *uśásam* *mártiyāsaḥ* /
 shining.forth-ACC dawn-ACC mortals-NOM
asmábhīr ū nū *praticákṣiyā* ~ *abhūd*
 we-INS and now visible-NOM become-3SG.AOR
á *u* *té* *yanti* *yé*
 hither and those-NOM go-3.PL.PRS who-NOM
aparíṣu *pásyān* //
 future-LOC see-3PL.PRS.SBJ

‘Gone are those mortals who have looked upon the previous shining dawn. And now she has come into existence to be seen in turn by us. Hither come those who shall look upon (her) in later times’³⁴ (RV I 113.11 after Klein 1978: 134)

- c. *yamáya* *sómaṁ* *sunuta*
 Yama-DAT Soma-ACC extract-2PL.PRS.IMP
yamáya *juhutā* *haviḥ* /
 Yama-DAT offer-2PL.PRS.IMP libation-ACC
yamáṁ *ha* *yajñó* *gacchaty*
 Yama-ACC PTC sacrifice-NOM come-3SG.PRS
agnídūto *áramḁṛtaḥ* //
 whose.messenger.is.Agni-NOM made.ready-NOM
 ‘Extract Soma for Yama, offer a libation for Yama—the prepared sacrifice comes to Yama with Agni as messenger’³⁵
 (RV X 14.13)

³³ Cf. Geldner (1951c: 56): ‘Eine Gefahr, die nah oder fern mich hier trifft, die vertreibe, o Pavamāna!’ Cf. also Klein (1985a: 111): ‘Which danger in proximity and which in the distance finds me here ... smash that off!’

³⁴ Cf. Geldner’s translation: ‘Vergangen sind die Sterblichen, welche die früheren Usas’ aufgehen sahen, jetzt hat sie sich von uns beschauen lassen; es kommen die, welche sie in Zukunft sehen werden.’

³⁵ Cf. Geldner (1951c: 144): ‘Dem Yama presset Soma, dem Yama opfert die Spende! Zu Yama geht ja das zubereitete Opfer, dessen Bote Agni ist.’

Other possible examples include (RV II 30.6, IV 25.3, VIII 93.6, X27.12). The fact that Present Indicative forms of achievement predicates are marginally compatible with a conative-preliminary reading may turn out to be significant. As Smith (1997: 80) suggests, the neutral aspect is generally incompatible with a preliminary interpretation. Within the framework developed here, however, this reading may be regarded as a special case of the present progressive-processual reading, which follows neatly from the aspectual specification of the neutral aspect. Deictically, the conative-preliminary reading can be analyzed in terms of progressive aspect ($t_E \subset t'$), present tense ($t_0 \subseteq t'$) and the implicature that the event time is located after evaluation time ($t_0 < t_E$).

Significantly, the Present Indicative is occasionally used to express that a situation has extended through the past and still holds at evaluation time. This reading is particularly transparent when Present Indicative forms are modified by durative adverbial modifiers with past time reference like *sanāt* 'from of old'. Consider the following examples:

- (86) a. *só arṇavó ná nadyàḥ samudríyaḥ*
 he-NOM waves-NOM like rivers-ACC of.the.ocean-NOM
prāti grbhṇāti víśritā várimabhiḥ /
 against take-3SG.PRS diffused-ACC widths-INS
índraḥ sómasya pītāye vṛṣāyate
 Indra-NOM soma-GEN drink-INF be.eager-3SG.PRS
sanāt sá yudhmá ójasā
 old-ABL he-NOM warrior-NOM strength-INS
panasyate //
 exite.admiration-3SG.PRS
 'Like waves of the ocean seize the rivers he seizes the diffused
 (soma juices) with his immense body. Indra is eager to drink
 soma. Since ancient times he has impressed (people) with his
 strenght³⁶ (RV I 55.2)
- b. *ádhi stotrásya sakhyásya gāta*
 onto song.of.praise-GEN friendship-GEN go-2PL.AOR.IMP

³⁶ Cf. Geldner (1951a: 71): 'Wie die Meeresflut der getrennten Flüsse nimmt er mit seinem Umfang (die Somaströme) in sich auf. Indra ist wie ein Stier gierig auf den Somatrunk. Von alters her wird der Streiter wegen seiner Stärke anerkannt.'

sanā́d dhí vo ratnadhéyāni
 old-ABL for you-DAT distributions.of.wealth-NOM
sānti //
 be-3PL.PRS

‘Think about the song of praise, think about the friendship.
 For from olden times you have been distributing wealth (lit.
 distributions of wealth have been yours)’³⁷ (RV X 78.8)

Other examples include (RV I 62.10;12, I 102.9, I 164.13, VII 32.24, X 87.19). Note that this construction is very similar in meaning to the universal or extended now reading of the anterior aspect, briefly discussed in Chapter One. It is typologically significant that the Present Indicative is compatible with an extended now time interval (XN), as this particular type of time reference is not universally available for present tense categories. For instance, in English, neither the Simple Present nor the Present Progressive are compatible with an extended now reading, as reflected in the choice of the Present Perfect in my translations of the above passages. I will return to a discussion of these matters in Chapter Five below. At present we may simply note that the underlying time relation may be analyzed in terms of present tense ($t_0 \subseteq t'$) and the implicature that event time is coextensive with reference time ($t_E = t'$), as indicated by the durative adverb *sanāt* ‘from of old’. Note that this adverb also implies that the reference time is ‘retrospective’, that is, a reference time extending from some time in the past and including speech time.

In all the examples we have encountered so far, the Present Indicative is mostly used with a strictly present time reference, except for its bound variable reading in relative clauses. It is therefore tempting to conclude that it obligatorily denotes a reference time which includes evaluation time. There is some evidence, however, that Present Indicative forms are marginally compatible with past reference times. Most notably, forms of this type can be modified by frame adverbs like *purā́* ‘formerly’. Consider for instance the following examples:

³⁷ Cf. Geldner (1951c: 260): ‘Gedenket des Lobliedes und der Freundschaft, denn schon seit langer Zeit teilet ihr Belohnungen aus.’

- (87) a. kvà tyāni nau sakhyā
 where those-NOM we-GEN friendships-NOM
 babhūvuḥ
 become-3PL.PRF
sācāvahe yād avṛkām purā
 associate-1.DU.PRS.MID when without.enmity formerly
 cit /
 even
 ‘What has become of those friendly relations of ours, as we
 two even formerly have associated without enmity’³⁸ (RV VII
 88.5ab)
- b. bhūri cakra marutaḥ pītryāṇy
 Many-ACC make-2.PL.PRF Maruts-VOC of.the.fathers-ACC
 ukthāni yā vaḥ śasyānte
 praises-ACC which-NOM you-DAT be.recited-3.PL.PRS
 purā cit /
 formerly even
 ‘O Maruts, you have given rise to many praises, which even
 formerly have been recited for you’³⁹ (RV VII 56.23ab)
- c. idā hí vo vidhaté rátnam
 now for you-ACC worship-PRS.PRT.DAT wealth-NOM
 ásti ~
 be-3.SG.PRS
 idā vīráya dāśúṣa uṣāsaḥ /
 now hero-DAT liberal-DAT Dawns-VOC
 idā viprāya járate yād ukthā
 now poet-DAT sing-3.SG.PRS when songs.of.praise-ACC
 ní śma mávate vahathā purā cit //
 to always like.me-DAT bring-2.PL.PRS formerly even
 ‘For now there is wealth for him who worships you, now for
 the liberal hero, O Dawns, now for the poet when he sings

³⁸ Cf. Geldner (1951b: 260): ‘Wohin ist diese Freundschaft zwischen uns gekommen, da wir früher ohne Feindschaft verkehrten?’

³⁹ Cf. Geldner (1951b: 232): ‘Ihr habt viele väterliche Loblieder veranlaßt, die euch schon ehemals vorgetragen wurden.’

songs of praise. Even formerly you have always brought (wealth) to one like me'⁴⁰ (RV VI 65.4)

Again it should be noted that examples like these do not occur very frequently.⁴¹ Recall from the discussion in Chapter One that past frame adverbs like *purā́* 'formerly' may be used to shift the evaluation time from speech time to some time prior to speech time when they are combined with present tense morphology. From this perspective, the examples in (87) may all be regarded as clear-cut cases of a historical use of the Present Indicative.

Note that some scholars assume that we are faced with two distinct constructions here. One construction contains a Present Indicative form modified by the adverb *purā́* 'formerly' denoting a situation which 'has extended through the past down to the present' and another contains a Present Indicative form modified by the adverb *purā́* 'formerly' and the particle *sma* 'ever, always' which 'expresses that something used to happen in the past' (cf. Macdonell 1916: 340).⁴² These two constructions thus seem to represent the progressive-processual reading and the iterative-habitual reading respectively, projected onto a past reference time. However, although a past progressive-processual reading is intuitively plausible in (87a), it is far from evident that an interpretation along these lines is necessary in (87b) where a past habitual interpretation seems more likely. Of course, this is a purely subjective judgement, in exactly the same manner as Macdonell's preference for a progressive reading has a subjective basis. The fundamental problem is that as long as we are dealing with subjective notions concerning a dead language where no native speakers can be consulted, an intersubjective evaluation of different claims remains extremely difficult.

Nevertheless, the compositional approach developed here suggests a principled method for resolving these and similar problems. The examples in (87) could all be hypothesized to predicate a coextension rela-

⁴⁰ Cf. Geldner (1951b:167): 'Denn jetzt ist für euch die (Zeit der) Belohnung für den Verehrer da, jetzt für den opferspendenden Mann, ihr Uṣas, jetzt für den Sprecher, wenn er in der Frühe Loblieder singt. Auch ehemals brachtet ihr meinesgleichen (etwas) ein.'

⁴¹ Cf., however, RV I 105.21, VIII 7.25, X 86.10.

⁴² I refer to Mayrhofer (1996: 779), Tichy (1995: 131–132, footnote 23) and, in particular, Mumm (2004) for a discussion of the semantics, pragmatics and etymology of the particle *sma*.

tion between reference time and event time ($t' = t_E$), a relation by now familiar from the iterative-habitual, performative and retrospective readings of the Present Indicative. In fact, it is tempting to regard these examples as special instantiations of the retrospective or extended now reading illustrated by the examples in (86). An immediate advantage of this assumption is that it provides a relatively straightforward analysis of an example like (87a). First, the frame adverb *purā* 'formerly' denotes an unspecific past reference time interval which has speech time as its absolute right boundary. Second, given that the Present Indicative form *sācāvahe* 'we two associated' expresses that reference time is coextensive with event time, the combination of this aspectual relation and the past time reference of the adverb *purā* implies that the right boundary of the reference time interval is not located after the time of the utterance. This is exactly the meaning intended here, as indicated by the immediately preceding sentence. A similar analysis could be applied to (87b) and (87c) as well. Furthermore, this construction might be hypothesized to be in principle compatible with a single event as well as a multiple event reading, being vague with regard to the exact cardinality of the situation. According to this analysis, the main function of the particle *sma* 'ever, always' would consist in enforcing the multiple event reading inherently available in the basic construction *purā* + *Present Indicative*. The relationship between the construction in (86) and the two constructions in (87) may be formally spelled out in the following manner:

- (88) a. (*sanāt*)||PRES/XN||[$\lambda P.\lambda t'.\exists e(t' = t_E(e) \wedge |e| \geq 1 \wedge P(e) = T)$]
 b. (*purā*)||PRES/XN||[$\lambda P.\lambda t'.\exists e(t' = t_E(e) \wedge |e| \geq 1 \wedge P(e) = T)$]
 c. (*purā*)||PRES/XN||(*sma*)[$\lambda P.\lambda t'.\exists e(t' = t_E(e) \wedge |e| > 1 \wedge P(e) = T)$]

The notation ||PRES/XN|| is intended as shorthand for 'reference time includes and partially precedes evaluation time' ($t_0 \subseteq t' \wedge t' \leq t_0$). The formalizations in (88) are intended to capture the intuition that the construction *sma purā* + *Present Indicative* may be analyzed as a semantically specific variant of the closely related construction *purā* + *Present Indicative* and that *sma* triggers a multiple event reading ($|e| > 1$).

To sum up, the Early Vedic Present Indicative may be used to denote a situation which is in progress at speech time, two or more situations which are temporally overlapping, a situation which is or has been

habitually recurring or two or more temporally successive situations. Some of these readings presuppose that it has an imperfective-like meaning, whereas others imply a perfective-like meaning. It was suggested that this apparent divergence may be solved by assuming that the Present Indicative denotes the neutral aspect, predicating a general inclusion relation between reference time and event time ($t' \otimes t_E$). Moreover, the Present Indicative has present time reference, expressing the temporal relation 'evaluation time included in reference time' ($t_0 \subseteq t'$). The apparent exceptions to this general rule may be explained in terms of shift in evaluation time. The semantic properties of the Early Vedic Present Indicative may be formalized in the following manner:

$$(89) \quad ||\text{PRES}||[\lambda P.\lambda t'.\exists e(t' \otimes t_E(e) \wedge |e| \geq 1 \wedge P(e) = T)]$$

This formalization expresses that the Early Vedic Present Indicative has a present neutral meaning and implies that the cardinality of the situation is one or more.

3.2 *The Imperfect*

In this section I discuss some salient and some less salient readings of the Early Vedic Imperfect. Unlike the Present Indicative, the Imperfect obligatorily denotes a past reference time. This is one important characteristic that distinguishes the Imperfect from the Present Indicative and the following pages aim to establish whether there are other significant semantic differences between these two categories.

Before scrutinizing the aspectual properties of the Imperfect, its temporal reference needs to be examined in somewhat more detail. I noted in the introductory chapter that the Imperfect tends to be restricted to contexts where a non-immediate or remote past reference time is explicitly specified or implicitly assumed (cf. e.g. Delbrück 1888: 279, Macdonell 1916: 365, Hoffmann 1967: 151 and Tichy 1997: 592 with footnote 8). One way of understanding this claim is that the Imperfect presupposes that there is an interval of considerable extent between reference time and evaluation time. The following examples illustrate the fact that the Imperfect occurs in contexts where the speaker indeed presupposes a large interval between reference time and speech time:

- (90) a. *devānām yugé prathamé*
 Gods-GEN generation-LOC first-LOC
'sataḥ sād ajāyata /
 not.being-ABL being-NOM be.born-3SG.IPF
 'In the (time of the) first generation of gods, being was born
 from not-being'⁴³ (Rigveda X 72.3ab)
- b. *tvām pūrva ṛṣayo gīrbhīr āyan*
 you-ACC of.old-NOM sages-NOM songs-INS go-3PL.IPF
tvām adhvarēṣu puruhūta víśve /
 you-ACC sacrifices-LOC much.invoked-VOC all-NOM
 'The sages of old went to you with invocations, all (went)
 to you during the sacrifices, O much-invoked one'⁴⁴ (RV X
 98.9ab)
- c. *indrāvaruṇā yád ṛṣibhyo mañīṣām*
 Indra.and.Varuṇa-VOC when sages-DAT wisdom-ACC
vācō matīm śrutām
 speech-ACC determination-ACC knowledge-ACC
adattam āgre /
 bestow-2DU.PRS beginning-LOC
yāni sthānāny asṛjanta dhīrā
 which-ACC regions-ACC spread.out-3PL.IPF wise-NOM.PL
yajñām tanvānās tāpasā ~ abhy
 sacrifice-ACC performing-NOM austerity-INS to
āpaśyam //
 see-1SG.IPF
 'O Indra and Varuṇa, by religious austerity I saw to which
 regions the sages spread out when you two bestowed wisdom,
 speech, determination and sacred knowledge upon them in
 the beginning'⁴⁵ (RV VIII 59.6)

⁴³ Cf. Geldner (1951c: 250): 'Im ersten Zeitalter der Götter entstand das Seiende aus dem Nichts'.

⁴⁴ Cf. Geldner (1951c: 310): 'Zu dir kamen die früheren Ṛṣi's mit Lobesworten, zu dir alle bei den Opfern, o Vielgerufener'.

⁴⁵ Cf. Geldner (1951b: 380): 'Indra und Varuṇa, als ihr im Anfang den Ṛṣi's Nachdenken, augedachte Rede, Gelehrsamkeit verliehet, da ergossen die Weisen diese als Gedichte, während sie das Opfer vollzogen.'

In the first example, the locative phrase *devānām yugé prathamé* ‘in the (time of the) first generation of the gods’ may be interpreted as a frame adverb specifying a reference time interval which is located prior to and remotely distant from speech time. The possibility that the Imperfect form *ajāyata* ‘was born’ has an immediate or recent past interpretation is therefore excluded. Likewise, the temporal adjective *pūrve* ‘earlier, former, of old’ in the second example may be taken to indicate that there is a large interval between the reference time of the situation denoted by the Imperfect form *āyan* ‘went’ and speech time. Finally, in the third example, the locative marked noun *āgre* ‘in the beginning’ indicates that the situations denoted by the Imperfect forms *adattam* ‘you two bestowed’ and *asrjanta* ‘they spread out’ are located in the maximally distant past, namely at the beginning of time.⁴⁶

These examples illustrate that the Imperfect is typically found in contexts where a remote past reference time is explicitly signaled or may be inferred from the context. It is significant, however, that

⁴⁶ For the lexical meaning of the noun *āgra-* ‘foremost, anterior; foremost point, front etc.’ cf. Grassmann (1996: 10–11), Monier-Williams (1899: 6), Macdonell (1924: 3) and Mayrhofer (1992: 45). The interpretation of the locative form *āgre* as ‘in the beginning (of time)’ is corroborated by the following passages:

hiranyagarbhāḥ	sām avertata	āgre
golden.fetus-NOM	come.into.being-3.SG.PRS.MID	beginning(.of.time)-LOC
bhūtāsya	jātāḥ	pātir
creation-GEN	born-NOM.SG	lord-NOM
		one-NOM
		be-3.SG.IPF

‘The golden fetus came into being in the beginning (of time). The sole lord of creation was born’ (RV X 121.1). Cf. Geldner (1951c: 347): ‘Im Anfang wurde er zum goldenden Keim. Geboren ward der alleinige Herr der Schöpfung.’

tāma	āsīt	tāmasā	gūḥām
darkness-NOM	be-3.SG.IPF	darkness-INS	covered-NOM.SG

āgre

beginning(.of.time)-LOC

apraketām	salilām	sārvam	ā	idām
indiscriminate-NOM.SG	gush-NOM	everything-NOM	be-3.SG.IPF	then-NOM

‘Darkness was covered by darkness in the beginning (of time). Everything was an indiscriminate gush then’ (RV X 129.3). Cf. Geldner (1951c: 360): ‘Im Anfang war Finsternis in Finsternis versteckt; all dieses war unkenntliche Flut.’

kāmas	tād	āgre
desire.of.love-NOM	this-ACC	beginning(.of.time)-LOC

sām avertata

come.into.being-3.SG.PRS.MID over

mānasō	rētaḥ	prathamām	yād	āsīt
thought-GEN	seed-NOM	first-NOM.SG	which-NOM.SG	be-3.SG.IPF

‘In the beginning (of time) a desire of love came into being over that which was the first seed of thought’ (RV X 129.4). Cf. Geldner (1951c: 360): ‘Über dieses kam am Anfang das Liebesverlangen, was des Denkens erster Same war.’

Note that these examples exclusively consist of Imperfect forms.

Imperfect forms are occasionally found in contexts where the interval between the reference time and speech time must be considerably smaller than in the examples just discussed. Compare, for instance, the following examples:

- (91) a. *yád adyá tvā prayatí yajñé*
 As today you-ACC go.on-PRS.PRT.LOC sacrifice-LOC
asmín
 this-LOC
hótaś cikitvó 'vr̥ṇīmahī ~ ihá /
 Hotar-VOC wise-VOC choose-1.PL.IPF here
 'As we chose you at this ongoing sacrifice here today, O wise Hotar (...)'⁴⁷ (Rigveda III 29.16ab)
- b. *táva ~ ahám adyá maghavann úpastutau*
 you-GEN I-NOM today great-VOC celebration-LOC
dhātār vídhātāḥ kalásām
 creator-VOC distributor-VOC waterpots-ACC
abhakṣayam //
 drink-1.SG.IPF
 'In my celebration of you today, O great creator, O distributor I drank from the waterpots'⁴⁸ (Rigveda X 167.3cd)
- c. *áyam adyá sukṛtaṃ prātār*
 come-1SG.IPF today pious-ACC at.daybreak
icchānn
 search-PRS.PRT.NOM
iṣṭēḥ putrām vásumatā ráthēna /
 wish-GEN son-ACC containing.treasures-INS wagon-INS
 'I came today at daybreak on a wagon full of treasures searching for the pious one, the son of my wish'⁴⁹ (RV I 125.3ab)

In these examples, the frame adverb *ádyā* 'today' specifies a reference time interval which is restricted by the limits of the present day. In the

⁴⁷ Cf. Geldner (1951a: 363): 'Da wir dich heute bei diesem beginnenden Opfer, du kundiger Hotr, erwählt haben' Cf. also Tichy's (1997: 597–598) translation: 'Weil wir heute, als dieses Opfer begann, kundiger Hotar, dich uns erwählt haben'.

⁴⁸ Cf. Geldner (1951c: 393): 'Bei deinem Lobpreis, du Gabenreicher, du Schöpfer und Lenker, habe ich heute aus den Bechern getrunken.'

⁴⁹ Cf. Geldner (1951a: 174): 'Ich kam heute in der Frühe mit schätzreichem Wagen, den Frommen suchend, den Sohn meines Wunsches.'

third example, the adverb *prātār* ‘at daybreak’ specifies a more precise reference time within this interval. Because of the inherent past time reference of the Imperfect forms *āvṛṇīmahī* ‘we chose’, *abhakṣayam* ‘I drank’⁵⁰ and *āyam* ‘I came’, the largest possible reference time is between the beginning of the day and speech time, which furnishes an absolute ‘right boundary’ for past reference times more generally.⁵¹ The fact that the Imperfect is found in contexts of this type indicates that it does not necessarily denote the remote past. It should be kept in mind, however, that examples like these are exceedingly rare in Early Vedic. As the observant reader will have noted, the examples in (91a) and (91b) were also cited in the introductory chapter. Indeed, these three passages represent the only examples of this type of construction found in the Rigveda. Nevertheless, they are valuable in so far as they provide unambiguous evidence that the Early Vedic Imperfect was not inherently associated with an objectively remote past reference time.

Interestingly, however, the Imperfect never occurs with temporal adverbs that explicitly relate reference time to speech time, like *nūnām* ‘now’, *nū* ‘now’ or *idānīm* ‘now, at this moment’ (cf. also Delbrück 1876: 6, 87–88). Moreover, several scholars have observed that Imperfect forms generally do not occur in contexts specifying what was defined as the subjectively proximate past in Chapter Two (cf. in particular Tichy 1997: 592 with footnote 8).⁵² Although this may be due to an accidental gap in the corpus, one might be tempted to take this as a *prima facie* indication that the Imperfect is generally excluded from contexts where the reference time interval ends immediately before speech time.

This point raises some rather intricate issues. In Chapter One, it was suggested that one should distinguish between subjective and objective remoteness notions. The notion of subjectively recent past was defined

⁵⁰ Cf. Jamison (1983a: 73) who takes the verb *bhakṣaya-* ‘drink, consume’ to be a denominative derived from the noun *bhakṣa-* ‘food, beverage’. Denominative verbs neither have an Aorist Stem nor a Perfect Stem in Early Vedic. From this perspective one could explain the use of the Imperfect form in the present example as motivated by the fact that the verb does not have a corresponding Aorist Indicative. If this explanation is correct, it might be interpreted as an indication that some blocking process is at work here. I will return to a discussion of this question in later on.

⁵¹ Other passages where Imperfect forms are modified by the adverb *ādya* ‘today’ include RV VIII 22.1.

⁵² Cf., however, Gonda (1962: 120ff.) and Etter (1985: 154) for a discussion of some possible example of Imperfect forms in immediate past contexts.

in terms of an immediate precedence relation between reference time and evaluation time ($t' > t_0$), whereas objectively recent past was defined in terms of an immediate precedence relation between reference time and evaluation time as well as between event time and evaluation time ($t', t_E > t_0$). The remoteness distinctions associated with the Imperfect discussed so far have been defined in objective terms and are conveyed by adverbial constructions specifying a more or less definite, objective past reference time. In a dead language like Early Vedic, however, it remains unclear how we can establish whether a subjectively proximate past reading is intended in a given context or not. By relying on adverbial constructions we are only able to identify a marginal subset of the relevant contexts and it is not even clear that the contexts we can thereby identify are heuristically significant. Recall from Chapter Two that the motivation for postulating a principled difference between subjective and objective remoteness distinctions in the first place was that so-called immediate past categories in some languages can be used to denote a situation which is located in an objectively remote past thereby expressing that the situation is particularly relevant at speech time (cf. e.g. Ö. Dahl 1984: 110ff.). One important corollary of this observation is that subjectively proximate past categories can be distinguished from e.g. hodiernal past categories by checking whether they are compatible with adverbial constructions specifying a prehodiernal past reference time. On the face of it, there is nothing problematic about this. Quite soon, however, we run into a paradox which proves extremely difficult to solve. If a defining characteristic of subjectively proximate past categories is that they are compatible with remote past adverbial expressions, how can we establish that we are faced with a subjectively proximate past category and not with some typologically different category which is also compatible with adverbial constructions of this type, for instance a subjectively remote past category? When we can recur to native speaker intuitions, this problem proves relatively easy to solve. When we are exploring the semantics of morphological categories in a dead language, however, this question proves to be far more difficult to answer. In general, then, the Imperfect seems to be restricted to contexts with an objectively remote past reference time, but it is also compatible with objectively recent past reference times. At present, I shall refrain from drawing any overly strong conclusions with regard to what types of subjective remoteness notions the Imperfect may convey. Nevertheless, I believe it is justified to conclude that the Imperfect may be regarded as a

general past tense category, expressing that reference time is located prior to evaluation time ($t_E < t'$)

So far we have established that the Early Vedic Imperfect is compatible with a variety of objectively remote and recent past contexts. In the following pages, I shall examine its aspectual properties in some detail with particular emphasis on the similarities and differences between the Imperfect and the Present Indicative.

First, we may note that the Imperfect is often used to denote a single, specific situation which is located prior to speech time (cf. e.g. Hoffmann 1967: 153). Two or more successive Imperfect forms typically denote a series of chronologically ordered events, as illustrated by the following examples:

- (92) a. *suṣupvāṁsa* *ṛbhavas* *tád* *apṛcchata* ~
 sleep-PRF.PRT.NOM *Ṛbhus*-VOC that-ACC ask-2PL.IPF
ágohya *ká* *idám* *no*
Agohiya-VOC who-NOM there we-ACC
abūbudhat /
 awaken-3SG.AOR
śvānaṃ *bastó* *bodhayitāram* *abravīt*
 dog-ACC goat-NOM awakener-ACC say-3SG.IPF
 'O *Ṛbhus*, having been sleeping you asked: "Agohiya, who has awakened us?" The goat said that a dog had awakened you'⁵³
 (RV I 161.13a-c)
- b. *sáudhanvanā* *áśvād* *áśvam*
 sons.of.Sudhanvan-VOC horse-ABL horse-ACC
ataḥṣata
 shape-2.PL.IPF
yuktvā *rátham* *úpa* *devāṃ* *ayātana* //
 yoke-ABS wagon-ACC to gods-ACC drive-2.PL.IPF
 'O sons of Sudhanvan, from a horse you created a (second) horse. Having yoked the wagon, you drove to the gods'⁵⁴ (RV I 161.7cd)

⁵³ Cf. Geldner (1951a: 221): 'Als ihr *Ṛbhu*'s ausgeschlafen hattet, da fragtet ihr: 'Agohya! Wer hat uns da geweckt?' Der Bock nannte den Hund als Wecker.'

⁵⁴ Cf. Geldner (1951a: 220): 'Ihr Söhne des Sudhanvan, aus einem Pferd zimmertet ihr ein (zweites) Pferd. Ihr schirrte den Wagen an und fuhret zu den Göttern.'

- c. *vṛṣāyāmāṇo* *’vṛṇīta* *sómaṃ*
 eager-NOM choose-3SG.IPF soma-ACC
trikadrūkeṣv *apibat* *sutásya /*
 trikadrukas-LOC drink-3SG.IPF juice-GEN
ā *sāyakaṃ* *maghāvā ~*
 to resounding-ACC munificent-NOM
adatta vājram
 get-3SG.IPF mace-ACC
āhann *enaṃ* *prathamajām* *āhīnām //*
 smite-3SG.IPF that-ACC first.born.ACC dragons-GEN
 ‘Eager he chose the soma. He drank of the extracted (soma)
 in the trikadrukas. The munificent one took the resounding
 mace. He killed that firstborn of the dragons’⁵⁵ (RV I 32.3)
- d. *vīḷáu* *satīr* *abhi* *dhīrā*
 firm-LOC be-PRS.PRT.ACC against wise-NOM
atṛndan
 cleave-3PL.IPF
prācā ~ *ahinvan* *mānasā* *saptā*
 directed.forwards-INS hasten-3PL.IPF mind-INS seven
vīprāḥ /
 sages-NOM
vīśvām *avindan* *pathyām* *ṛtāsya*
 all-ACC find-3PL.IPF path-ACC fixed.order-GEN
prajānānn *ít* *tā* *nāmasā ~*
 know-PRS.PRT.NOM indeed they-ACC adoration-INS
ā *viveśa //*
 at settle-3SG.PRF
 ‘The wise ones cleft their way to those who were in a firm
 place, with their mind directed forwards, the seven sages
 hastened on. They discovered the whole path of fixed order.
 Indeed, (ever since) he who knows has taken possession of
 them’⁵⁶ (RV III 31.5)

⁵⁵ Cf. Geldner (1951a: 37): ‘Der Gabenreiche ergriff das Wurfgeschloß, die Keule; er erschlug ihn, den Erstgeborenen der Drachen.’

⁵⁶ Cf. Geldner (1951a: 367): ‘Die Weisen bahnten den Weg zu den in der Feste weilenden (Kühen), mit vorwärtsstrebenden Sinne trieben die sieben Wortführer zu Eile. Sie fanden jeden richtigen Weg. Der Kundige hat (seitdem) mit seiner Anbetung diese eingeschlagen.’

Similar examples frequently occur.⁵⁷ In these cases, the Imperfect forms *apṛcchata* ‘asked’, *ataḥṣata* ‘shaped’, *avṛṇīta* ‘chose’, *apibat* ‘drank’, *adatta* ‘got’ and *ahinvan* ‘hastened’ denote a single, specific situation which is temporally and causally prior to the situations denoted by the Imperfect forms *abravīt* ‘said’, *ayātana* ‘drove’, *apibat* ‘drank’, *adatta* ‘got’, *áhan* ‘smote’ and *avindan* ‘found’, respectively. In the first example, the situation denoted by the Imperfect form *abravīt* ‘he said’ is represented as an immediate consequence of the situation denoted by the preceding Imperfect form *apṛcchata* ‘you asked’. In the second example the situation denoted by the Imperfect form *ataḥṣata* ‘you shaped’ is a necessary causal prerequisite for the situation denoted by the following absolutive form *yuktvā rátham* ‘having yoked the wagon’ which, in turn, is causally and temporally prior to the Imperfect form *ayātana* ‘you went’. The third passage makes reference to the well-known myth of Indra, who, after having drunk soma, kills the dragon Vṛtra. A sequential interpretation is favored by the fact that the soma-drinking is often represented as a causal prerequisite for Indra’s heroic deeds in general⁵⁸ and the killing of the dragon in particular.⁵⁹

Significantly, the data in (92) indicate that a sequential reading is available for Imperfect forms of telic as well as atelic predicates. The predicates *PRAS- ká no abūbudhat* ‘ask: who has awakened us’ and *BRAV- śvānam bodhayitāram* ‘say: the dog was the awakener/name

⁵⁷ Cf. e.g. RV II 13.12, II 15.3, II 17.5, II 20.7, II 22.2, II 24.2, II 24.14, III 31.4, III 31.12, IV 35.3etc.

⁵⁸ Cf. e.g. the following passage:

sómasya	tā	māda	índraś	caḥāra
soma-GEN	these-ACC	intoxication-LOC	Indra-NOM	make-3.SG.PRF

‘Indra did these (deeds) in the intoxication of soma’ (RV II 15.2–9). Cf. Geldner 1951a: 295–296: ‘Im Rausche des Soma hat Indra das getan.’

Cf. also RV II 22.1.

⁵⁹ Cf. e.g. the following passage:

ánu	yád	ím	marúto	mandasānám	árcann
repeatedly	when	he-ACC	Maruts-NOM	intoxicated-ACC.SG	sing-3.PL.IPF

índram	papivāmsam	sutásya	ádatta	vájram
Indra-ACC	drink-PRF.PRT.ACC.SG	potion-GEN	take-3.SG.IPF	mace-ACC

abhí	yád	áhim	hānn
at	which-ACC.SG	dragon-ACC	strike-3.SG.PRS.INJ

‘When the Maruts praised the intoxicated Indra who had drunk extracted (soma) repeatedly, then he took the mace, which he struck at the dragon’ (RV V 29.2). Cf. Geldner (1951b: 25): ‘Als die Marut dem trankbegeisterten Indra zusangen, der vom Soma getrunken hatte, da faßte er die Keule, als er den Drachen erschlug.’

Cf. also RV II 15.1.

the dog as the awakener' in (92a) and *TAKṢ-* *áśvam* 'make a horse' and *ÚPA-YĀ-* *devān* 'approach the gods' in (92b) represent telic predicates. Although the bare plural noun phrase *devān* 'gods' is not explicitly marked as definite, a definite reading is likely here as the speaker refers to a contextually salient group of individuals which may be taken to be inherently or logically definite in the sense discussed in Chapter Two. I therefore take the noun phrase to denote a specific quantity so that the resultant predicate may be classified as telic.

On the other hand, the verb phrases *PĀ-* *sutásya* 'drink soma' in (92c) and *HAY-* 'impel, hurry' in (92d) represent atelic process predicates. These examples show that Imperfect forms of atelic verbs are marginally compatible with a sequential reading. Note, however, that examples of this type are relatively rare.

In examples like those cited in (92), two or more successive Imperfect forms represent two or more situations as causally and chronologically ordered. It should be noted, however, that this tendency, despite being highly general, does not qualify as a universal rule. Some stanzas—even entire hymns—in the *Rigveda* appear to be structured as a mere listing of the various deeds ascribed to the god to whom the hymn is addressed, so that two or more Imperfect forms seemingly refer to an unordered set of causally and temporally unrelated situations. This achronological use of the Imperfect is particularly clear in cases where two or more passages refer to the same set of events, but arrange the events differently. Consider for instance the following examples.

- (93) a. *yó* *brahmāṇe* *prathamó* *gā*
 Who-NOM Brahman-DAT first-NOM cows-ACC
ávindat /
 find-3SG.IPF
índro *yó* *dásyũṁr* *ádharāṁ*
 Indra-NOM who-NOM enemies-ACC vile-ACC
avátiran
 overcome-3SG.IPF
marútvantāṁ *sakhyáya*
 attended.by.the.Maruts-ACC friendship-DAT
havāmahe //
 invoke-1PL.PRS

‘He who first found the cows for the Brahman, who overpowered (the) vile enemies, we invoke Indra who is attended by the Maruts to friendship’⁶⁰ (RV I 101.5b–d)

- b. *áhann* *áhim* *ábhinad* *rauhiṇám*
 smite-3SG.IPF dragon-ACC split-3SG.IPF Rauhiṇa-ACC
 vy
 apart
áhan *vyāṃsaṃ* *maghāvā* *śacībhiḥ* // (...)
 smite-3SG.IPF Vyaṃsa-ACC bountiful-NOM skills-INS
sá *gā* *avindat* *só* *avindad*
 he-NOM cows-ACC find-3SG.IPF he-NOM find-3SG.IPF
áśvān
 horses-ACC
sá *óṣadhīḥ* *só* *apáh*
 he-NOM medicinal.herbs-ACC he-NOM waters-ACC
sá *vānāni* //
 he-NOM trees-ACC
 ‘He smote the dragon, split Rauhiṇa apart, the liberal one smote Vyaṃsa with his skills (...) he found the cows, he found the horses, he (found) medicinal herbs, he (found) the waters, he (found) trees’⁶¹ (RV I 103.2cd–5)

Although the two passages are not entirely identical, they refer to roughly the same sets of events. Both of these stanzas are extracted from hymns addressed to the god Indra in which he is praised for his mythical deeds. I take the process predicate *ÁVA-TAR^I- dásyūṃr ádharān* ‘overpower (the) vile enemies’ in the first example to include in its denotation the set of situations denoted by the telic predicates *HAN- áhim* ‘smite the dragon’, *VÍ-BHED- rauhiṇam* ‘split Rauhiṇa apart’ and *HAN- vīaṃsam* ‘smite Vyaṃsa’ in the second example. It is significant that the Imperfect forms *avindat* ‘he found’ and *avātiran* ‘he overpowered’ in the first stanza represent the two situations in

⁶⁰ Cf. Geldner (1951a: 130): ‘Der zuerst für den der heiligen Rede Kundigen die Kühe fand, Indra, der die Dasyu’s unterwarf,—den Marutbegleiteten rufen wir zur Freundschaft.’

⁶¹ Cf. Geldner (1951a: 133–134): ‘Er erschlug den Drachen, zerspaltete den Rauhiṇa, erschlug den Vyāṃsa mit aller Kraft, der Gabenreiche (...) Er gewann die Rinder, gewann die Rosse, er die Gewächse, er die Gewässer, er die Bäume.’

one chronological order, whereas the corresponding Imperfect forms in the second hymn relate them in the opposite order. In fact, in the second stanza the situations appear to be ordered according to what kind of situation they denote and not according to their temporal or causal order.

These examples show that two or more successive Imperfect forms do not necessarily represent the situations in a chronological and/or causal order in Early Vedic, but in some cases are merely used to express that a situation took place at some indefinite time prior to speech time without considering its temporal and causal relation to other situations mentioned in the same context. The fact that the Imperfect can be used in this manner probably reveals more about the textual genre of some Early Vedic hymns than about the aspectual semantics of the Imperfect. In these cases, the reference time is structured as a set of discontinuous and temporally unordered subintervals and its left boundary is arbitrarily set by the first situation mentioned. In contrast, narrative texts are typically characterized by a reference time structured as a set of temporally ordered subintervals, the left boundary of which is constituted by the first situation in the narrative sequence. As these two types of textual genres are structured in fundamentally different manners, one might expect them to exploit aspectual distinctions in different ways.

Somewhat more remarkable, though, is a similar, yet slightly different, use of the Imperfect. In a few passages the chronological order of two or more situations typically conceived of as causally closely related are represented in an inverted manner by a sequence of Imperfect forms. This use of the Imperfect differs from the one just discussed in that the achronological reading holds between two or more causally unrelated situations, whereas the inverted reading holds between two or more causally related situations. The temporally inverted reading of the Imperfect may be illustrated by the following passages:

- (94) a. *áhann* *áhim* *áriṇāt* *saptá*
 smite-3SG.IPF dragon-ACC release-3SG.IPF seven
 síndhūn
 rivers-ACC
 ápāvṛṇod *ápihitā* ~ *iva* *khāni* //
 uncover-3SG.IPF concealed-ACC like canals-ACC

‘He smote the dragon, he released the seven rivers, uncovering the canals as if they had been concealed’⁶² (RV IV 28.1cd)

- b. tvám síndhūṁr ávāsṛjo
 you-NOM rivers-ACC release-2SG.IPF
 ’dharáco áhann áhim /
 tending.downwards-ACC smite-2SG.IPF dragon-ACC
 ‘You released the rivers that were tending downwards, you
 killed the dragon’⁶³ (RV X 133.2ab)

Examples of this kind are rare.⁶⁴ The verbal predicates *HAN- áhim* ‘smite a/the’ dragon’ and *RAY- saptá síndhūn* ‘release (the) seven rivers’ in the first example may be classified as telic since they both consist of an accomplishment verb with a specifically quantified internal argument. As regards the second example, the predicate *ÁVA-SARJ-síndhūn* ‘release rivers’ can clearly be taken to be atelic. However, as this passage refers to the well-known myth of Indra killing the dragon *Vṛtra* thereby releasing the heavenly rivers, one may assume that there is a contextually salient set of (seven) rivers which are logically definite in the sense discussed above. Accordingly, the noun phrase *síndhūn* ‘(the) rivers’ has a definite reading here and hence denotes a specific quantity, so that the resultant predicate is telic.

The former passage represents the killing of the dragon as causally and temporally prior to the releasing of the waters in accordance with the majority of passages which refer to this episode.⁶⁵ In the second passage this order is inverted, the Imperfect forms *ávāsṛjas* ‘you

⁶² Cf. Geldner (1951a: 456): ‘Er erschlug den Drachen, ließ die sieben Ströme laufen und öffnete die Kanäle, die gleichsam gesperrt waren.’

⁶³ Cf. Geldner (1951c: 365): ‘Du ließeest die Flüsse abwärts laufen; du erschlugst den Drachen.’

⁶⁴ Other possible examples include RV II 24.3 (*ājat, ábhinat*) and RV IV 19.8 (*asṛjat, atṛnat*).

⁶⁵ The causal relationship between the two situations is particularly clear in passages like the following:

yó	hatvā	áhim	áriṇāt	saptá	síndhūn
who	smite-ABS	dragon-ACC	release-3.SG.IPF	seven	rivers-ACC

‘Who after having smitten the dragon released the seven rivers’ (RV II 12.3). Cf. Geldner (1951a: 290): ‘Der den Drachen erschlug und die sieben Ströme laufen ließ’

mama	etān	putró	mahatā	vadhéna
my	these-ACC.PL	son-NOM	great-INS.SG	weapon-INS

vṛtrám	jaghanvām	asṛjad	ví	síndhūn
Vṛtra-ACC	smite-PRS.PRT.NOM.SG	release-3.SG.IPF	apart	rivers-ACC

released' and *áhan* 'smote' representing the releasing of the waters as temporally and causally prior to the killing of the dragon. This represents an isolated, yet fairly clear-cut counterexample to the general rule that Imperfect forms relate causally related events in a chronologically ordered manner (cf. e.g. Hoffmann 1967: 168ff., Kiparsky 2005: 223). The question is how this use of the Imperfect can be explained.

At first glance, it does indeed seem strange that the chronological order of two causally related situations is inverted by reversing the order of the morphosyntactic constituents onto which they are mapped. On second thoughts, however, this stylistic move is less exotic than one might be inclined to think. Recall from Chapter One that the English Simple Past under given contextual circumstances is interchangeable with the Pluperfect. One particular context type in which these two categories can be mutually exchanged without any significant difference in meaning is exactly when the chronological order of two situations is reversed, as illustrated by examples (19a) and (19c), repeated here for convenience.

- (19) a. Tom arrived. Sue arrived the day before (Nerbonne 1986: 88)
 c. Tom arrived. Sue had arrived the day before (Nerbonne 1986: 89)

In cases like these, a narrative flashback indicates that the second sentence describes a state of affairs which is temporally prior to the state of affairs described by the immediately preceding sentence. From a formally oriented perspective, a flashback indicates that the evaluation time parameter has a bound variable reading, being anchored in the reference time of the preceding discourse and denoting the relative past relation. One way to explain the divergent use of the Imperfect form in (94b) would be to assume that the Imperfect can sometimes be used with a relative past reading.

This assumption finds some support in the fact that Imperfect forms are occasionally used with a relative past meaning in subordinate clauses, as illustrated by the examples in (95).

'My son let the waters flow apart when he had smitten Vṛtra with the great weapon' (RV IV 18.7). Cf. Geldner (1951a: 442): 'Mein Sohn hat diese Flüsse laufen lassen, nachdem er mit der großen Waffe den Vritra erschlagen hatte.'

In these cases, the absolutive form *hatvā* 'after having smitten' and the perfect participle *jaghanvān* 'having smitten' unambiguously represent the situation denoted by the verbal predicate *HAN-* 'smite, kill' as temporally and causally prior to the situations denoted by the Imperfect forms *árināt* 'released' and *asṛjad* 'let flow'.

- (95) a. *tvāṣṭā* *yád* *vájraṃ* *súkṛtaṃ*
 Tvaṣṭar-NOM when mace-ACC well.made-ACC
hiraṇyáyaṃ
 golden-ACC
sahásrabhr̥ṣṭīm̐ *svápā* *ávartayat /*
 thousand.pointed-ACC skilful-NOM. shape-3SG.IPF
dhattá *índro* *náry* *ápāṃsi*
 take-3SG.PRS Indra-NOM manly-ACCM deeds-ACC
kártavé
 make-INF
'han *vṛtráṃ* *nír* *apám*
 smite-3SG.IPF Vṛtra-ACC out waters-GEN
aubjad *aṇavám //*
 let.loose-3SG.IPF flood-ACC
 'When skilful Tvaṣṭar had fashioned the well-made, golden, thousand-pointed mace, Indra took (it) for himself to perform manly deeds; he smote Vṛtra, let loose the flood of the waters'⁶⁶
 (RV I 85.9)
- b. *yám* *vái* *súryaṃ* *svàrbhānuṣ*
 which-ACC truly sun-ACC Svarbhānu-NOM
támasā ~ *ávidhyad* *āsurāḥ /*
 darkness-INS pierce-3SG.IPF āsura-NOM
átrayas *tám* *ánv* *avindan*
 Atris-NOM that-ACC after find-3PL.IPF
nahy *ànyé* *ásaknuvan //*
 for.not others-NOM be.able-3PL.IPF
 'Truly, the sun which the āsura Svarbhānu had pierced with darkness, the Atris recovered, for no one else was able to'⁶⁷
 (RV V 40.9)

In the first example, the Imperfect form *ávartayat* 'you shaped, had shaped' denotes a situation which is temporally located prior to the

⁶⁶ I take the Present Indicative form *dhatté* 'takes for himself' to be a historical present and translate it by a past tense form. Geldner (1951a: 110) translates with a present tense form: 'Als Tvaṣṭr, der Künstler, die wohlgearbeitete, goldene, tausendzackige Keule gedreht hatte, nimmt sie Indra, um Manneswerke zu tun. Er erschlug den Drachen, ließ die Flut der Gewässer heraus.'

⁶⁷ Cf. Geldner (1951b: 39): 'Die Sonne nämlich, die der asurische Svarbhānu mit Finsternis geschlagen hatte, die fanden die Atris wieder, denn andere waren dazu nicht im Stande.'

situation denoted by the following Present Indicative and Imperfect forms, *dhatté* ‘takes’, *áhan* ‘smote’ and *aubjad* ‘let loose’. Observe that the Present Indicative seems to have a historical reading here, its evaluation time being anchored in the past reference time of the discourse context. The predicate VART- *vájram* ‘shape a/the mace’ may be classified as a telic event predicate, as it consists of a change of state verb and has a specifically quantified internal argument. It has already been noted that the relative conjunction *yád* ‘when’ shifts the evaluation time of the clause from speech time to the reference time of a corresponding main clause. A similar effect may be ascribed to the relative pronoun *yá-* ‘who, which’ in the second example, so that the the evaluation time of the Imperfect form *ávidhyad* ‘pierced, had pierced’ is shifted from speech time to the reference time of the main clause. Significantly, I have found no examples of Imperfect forms of atelic predicates with a relative past reading.

The relative past reading may be regarded as a special case of the sequential reading, caused by a contextually determined shift in temporal perspective. Given that the Imperfect is compatible with a relative past reading in other contexts, it is tempting to suggest that the peculiar use of the Imperfect in (94b) could be interpreted as a flashback in the temporal progression, yielding a relative past meaning. Flashbacks represent a fairly common way of expressing the relative past relation in natural language. Note, however, that there are extremely few cases of Imperfect forms in narrative flashbacks in Early Vedic, but given the relatively small amount of textual sources this could be due to an accidental gap in the corpus, not least because the Aorist Indicative represents the main expression of relative past in this language (cf. e.g. Delbrück 1888: 578–579, Hoffmann 1967: 159, Tichy 1997: 599 and Chapter Four below).

The sequential reading presupposes that two or more situations in the same context are represented as being terminated within the reference time. The Early Vedic Imperfect would therefore seem to be compatible with the implicature that the event time is properly included in reference time. *Mutatis mutandis*, the same applies to the relative past reading. The achronological use of the Imperfect, on the other hand, minimally requires that it is able to represent a situation as coextensive with or properly included in the reference time. The examples cited in (92), (93) and (94) as well as those cited in (90) and (91) thus indicate that the Imperfect is compatible with the aspectual relation ‘event time (properly) included in reference time’ ($t_E \subseteq t$ \vee $t_E \subset t$). As

these examples are fairly representative of how the Imperfect is used in the R̥gveda, it is tempting to conclude that it represents a past tense category with a semantically more or less specific basic perfective meaning. Although it is unlikely that anyone would claim that the Early Vedic Imperfect represents a past perfective category, it would be nice to have a compelling reason to exclude this possibility, as this strictly speaking could still represent a possible semantic description of the Imperfect. However, it may be prudent to exercise some caution when interpreting these data, as past tense forms are strongly associated with the implicature that the situation has been terminated prior to speech time in many languages. The fact that a given past tense category is used with a perfective-like meaning in the overwhelmingly majority of cases thus does not entail that it has a perfective meaning (cf. e.g. Smith 1997: 89). It would hardly be surprising if an implicature of this kind in some cases could give rise to a sequential interpretation. Recall from the discussion of the perfective aspect in Chapter One that perfective categories do not represent the only type of aspectual operators which can be used with a sequential meaning in narrative contexts. We therefore need to consider some other types of evidence before drawing any conclusions as to the aspectual properties of the Early Vedic Imperfect.

The observant reader will have noted that the Imperfect form *atr̥ndan* ‘cleft’ in example (92d) was not included in the discussion of the use of the Imperfect to denote a sequence of terminated situations. I repeat that example here for convenience:

- (92) d. *vī́lau* *satír* *abhí* *dhírā*
 firm-LOC be-PRS.PRT.ACC against wise-NOM
atr̥ndan
 cleave-3PL.IPF
prā́cā ~ *ahinvan* *mānasā* *saptā*
 directed.forwards-INS hasten-3PL.IPF mind-INS seven
vīprāḥ /
 sages-NOM
vísṵām *avindan* *pathyām* *ṛtāsya*
 all-ACC find-3PL.IPF path-ACC fixed.order-GEN
prajānānn *ít* *tā* *nāmasā* ~
 know-PRS.PRT.NOM indeed they-ACC adoration-INS
ā *viveśa* //
 at settle-3SG.PRF

‘The wise ones cleft their way to those who were in a firm place; with their mind directed forwards, the seven sages hastened on. They discovered the whole path of fixed order. Indeed, (ever since) he who knows has taken possession of them’⁶⁸ (RV III 31.5)

The reason why *atr̥ndan* ‘cleft’ was excluded from the previous discussion is that the situation it denotes seemingly does not, strictly speaking, precede the situation denoted by *ahinvan* ‘hastened’. The two situations rather appear to be represented as temporally overlapping each other. Recall that the Present Indicative was also shown to have a similar reading, which was argued to represent a contextually determined variant of its progressive-processual reading. The obvious question thus arises whether the Imperfect also has a progressive-processual reading.

As a first approximation, we may note that Imperfect forms of atelic predicates tend to yield a past simultaneous reading in coordinate clauses. Consider the following examples:

- (96) a. *yáj* *jáyathās* *tád* *áhar*
 what-ACC be.born-2SG.PRS.INJ that-ACC day-ACC
asya *káme*
 it-GEN love-LOC
’mśóḥ *pīyūṣam* *apibo*
 filament-GEN juice-ACC drink-2SG.IPF
giriṣṭhām /
 coming.from.the.mountains-ACC
tám *te* *mātā* *pári*
 this-ACC you-DAT mother-NOM round
yóṣā *jánitrī*
 maiden-NOM parent-NOM
maháḥ *pitúr* *dáma* *ásiñcad*
 great-GEN father-GEN home-LOC pour.out-3SG.IPF
ágre //
 beginning-LOC

⁶⁸ Cf. Geldner (1951a: 367): ‘Die Weisen bahnten den Weg zu den in der Feste weilenden (Kühen), mit vorwärtsstrebenden Sinne trieben die sieben Wortführer zu Eile. Sie fanden jeden richtigen Weg. Der Kundige hat (seitdem) mit seiner Anbetung diese eingeschlagen.’

‘On the day when you were born you voluptuously drank nectar of the plant which comes from the mountains. Your mother, the young maiden, was pouring it abundantly out for you in the house of your great father for the first time’ (RV III 48.2)

- b. upasthāya mātāram ānnam aitta
stand.beside-ABS mother-ACC food-ACC request-3SG.IPF
tigmám apaśyad abhí sómam ūdhaḥ /
sharp-ACC see-3SG.IPF to soma-ACC udder-ACC
‘Being close to his mother he cried for food, looking for the strong soma as (if it were) an udder’⁶⁹ (RV III 48.3ab)

- c. víśvasmāt sīm adhamāṁ indra dāsyūn
all-ABL PTC lowest-ACC Indra-VOC Dasyus-ACC
víśo dāsīr akṛṇor
clans-ACC impious-ACC make-2SG.IPF
apraśastāḥ /
without.fame-ACC
ābādhethām āmr̥ṇataṁ ní śātrūn
suppress-2DU.IPF crush-2DU.IPF down enemies-ACC
āvindethām āpacitiṁ vādhatraiḥ //
find-2DU.IPF revenge-ACC weapons-INS
‘O Indra, you made the Dasyus inferior to all, you made the impious clans fameless. You two suppressed, you crushed down (the) enemies, by weapons you found revenge’⁷⁰ (RV IV 28.4)

- d. devāsa āyan paraśúm̐r abibhṛan
Gods-NOM go-3PL.IPF axes-ACC carry-3PL.IPF
vánā vṛścānto abhí viḍbhír
wood-ACC cut-PRS.PRT.NOM towards attendants-INS
āyan /
go-3PL.IPF

⁶⁹ Cf. Geldner (1951a: 388–389): ‘Vor seiner Mutter tretend rief er nach Speise; er schaute nach dem scharfen Soma als dem Euter.’

⁷⁰ Cf. Geldner (1951a: 456): ‘Du, Indra, machtest, daß die Dasyu’s zu allerunterst stehend, du machtest die dāsischen Stämme ehrlos. Ihr beide bedrängt, zermalmst die Feinde; mit den Waffen nahmet ihr Vergeltung.’

‘The gods strode forth; they carried axes; hewing the trees they advanced with their clans towards (the ritual ground)’⁷¹ (RV X 28.8ab)

Similar examples occur somewhat frequently.⁷² In these examples, the Imperfect forms *apibas* ‘drank’, *aiṭṭa* ‘requested’, *ábādhethām* ‘suppressed’, *ámṛṇatam* ‘crushed’, *āyan* ‘went’, *abibhṛan* ‘carried’ denote situations which are temporally overlapping with the situations denoted by the immediately following Imperfect forms *āsiṅcat* ‘poured, was pouring’, *apaśyat* ‘saw’, *ámṛṇatam* ‘crushed’, *āvindethām* ‘found’, *abibhṛan* ‘carried’ and *āyan* ‘went’, respectively. All the predicates, to which the former group of Imperfect forms belongs, may be classified as atelic, perhaps with the exception of *NĪ-MAR*’- *śátrūn* ‘kill (the) enemies’. Specifically, this verbal predicate consists of a change of state verb and an internal argument which could be argued to denote a specific quantity by virtue of the direct anaphora relation holding between the noun phrase *śátrūn* ‘enemies’ and the preceding noun phrases *dásyūn* ‘the Dasyus’ and *vísó dāsīs* ‘impious clans’.

The above examples indicate that Imperfect forms of atelic verbal predicates can be used to express that a past situation is temporally overlapping with another past situation. As we have already seen, Imperfect forms of this class of predicates also appear to be marginally compatible with a sequential reading, expressing that the situation was terminated prior to another past situation. We may therefore conclude that the Imperfect is vague in distinguishing between a perfective and an imperfective reading when combined with atelic predicates. Recall from the previous discussion that the temporally overlapping reading of the Present Indicative was argued to represent a special case of the progressive-processual reading. The data in (96) thus may be taken to suggest that Imperfect forms of atelic predicates are compatible with a progressive-processual interpretation ($t' \subset t_E$), something which would seem to preclude that it denotes the perfective aspect ($t_E \subseteq t'$).

It is unclear, however, to what extent the fact that Imperfect forms of atelic predicates may be used to express temporal overlap provides

⁷¹ Cf. Geldner (1951c: 172): ‘Die Götter zogen aus, sie trugen Äxte; die Bäume fällend zogen sie mit ihren Dienstmannen hin.’ My interpretation is based on Stephanie Jamison’s translation (p.c.): ‘The gods came; they carried axes; hewing the trees they advanced with their clans towards (the ritual ground).’

⁷² Cf. e.g. RV III 30.10, III 31.5, IV 16.7, IV 26.2, IV 27.1, IV 28.3, VII 29.4.

compelling evidence against the possibility that it represents a past perfective category. Recall from the discussion in Chapter One that past perfective forms of atelic predicates are sometimes used to focus the entry into a state or process, a reading which was labeled ‘inchoative-ingressive’. From this perspective it is significant that Imperfect forms of atelic predicates in some cases seem to be used with an inchoative-ingressive meaning, as illustrated by the examples in (96) (cf. also Gonda 1962: 126–128 for other useful examples).

- (97) a. *apād* *ahastó* *apṛtanyad* *índram*
 footless-NOM handless-NOM fight-3SG.IPF Indra-NOM
á ~ asya *vájram* *ádhi sánau* *jaghāna* /
 to he-GEN mace-ACC on ridge-LOC smite-3SG.PRF
vṛṣṇo *vádhriḥ* *pratimānam*
 bullish-GEN castrate-NOM counterpart-NOM
búbhūṣan
 want.to.be-PRS.PRT.NOM
purutrā *vṛtró* *aśayad* *vyàstah* //
 in.many.places Vṛtra-NOM lie-3SG.IPF asunder-NOM
nadām *ná* *bhinnám* *amuyā* *śáyānam*
 reed-ACC like split-ACC this-INS lie-PRS.PRT.ACC
māno *rúhāṇā* *āti* *yanty*
 Manu-GEN ascend-AOR.PTC over go-3PL.PRS
āpaḥ /
 waters-NOM
 ‘Without feet and hands he fought Indra. (Indra) smote the mace on his neck. Vṛtra, the castrate who wanted to be a counterpart for the bullish one was spread asunder in many places. Having risen, Manu’s waters are flowing over him who is lying there just so like split reed’⁷³ (RV I 32.7–8ab)
- b. *kád* *atviṣanta* *sūrāyas*
 INTERROG.PTC be.agitated-3PL.IPF lords-NOM

⁷³ Cf. Geldner (1951a: 37–38): ‘Ohne Hand und Fuß kämpfte er gegen Indra. Der schlug ihm die Keule in den Nacken. Der verschnittene (Stier), der dem Bullen gewachsen sein wollte, der Vṛtra lag zerstückt an vielen Stellen da. Über ihn, der wie geschnittenes Rohr nur so dalag, gingen aufsteigend die Gewässer des Manu hinweg.’

tirá ápa iva srídhaḥ /
 over waters-NOM like enemies-ACC
 árṣanti pūtádaḥśasaḥ //
 flow-3PL.PRS pure.minded-NOM
 ‘Did the the lords become agitated? Like waters the pure-
 minded are flowing over the enemies’⁷⁴ (RV VIII 94.7)

- c. índro asmāñ aradad vájrabāhur
 Indra-NOM we-ACC dig-3SG.IPF mace.armed-NOM
 āpāhan vṛtrāñ paridhīm nadínām /
 away.smite-3SG.IPF Vṛtra-ACC enclosure-ACC rivers-GEN
 devò ‘nayat savitā
 god-NOM lead-3SG.IPF Savitar-NOM
 supāñís
 with.beautiful.hands-NOM
 tāsya vayāñ prasavé yāma
 he-GEN we-NOM impetus-LOC drive-1PL.PRS
 urvīḥ //
 broad-NOM
 ‘Mace-armed Indra dug us; he warded off Vṛtra, the enclosure
 of the rivers. God Savitar incited us with his beautiful hands.
 On his impetus we are flowing widely’⁷⁵ (RV III 33.6)

- d. daṇḍā ivá ~ íd goájanāsa āsan
 sticks-NOM like indeed cattle.driving-NOM be-3PL.IPF
 páricchinnā bharatā arbhakāśaḥ /
 cut.round-NOM Bharatas-NOM weak-NOM.PL
 ábhavac ca puraetā vásiṣṭha
 become- 3SG.IPF and leader-NOM Vasiṣṭha-NOM
 ád ít tṛtsūnām víśo aprathanta //
 and.right.then Trṛtsus-GEN clans-NOM spread.out-3PL.IPF

⁷⁴ Cf. Geldner (1951b: 420): ‘Sind die noblen Herren in Feuer geraten? Eilen sie über die Fehlschläge hinweg wie über die Gewässer, die von lauterem Wollen?’ Cf. also Etter’s (1985: 125) translation of the passage: ‘Waren die herren Erregt? Sie strömen den Wassern gleich über die Falschgläubigen hinweg, sie, die von reiner Gesinnung sind.’

⁷⁵ Cf. Geldner (1951a: 373): ‘Indra, der Keulenträger, fürchte uns das Bett; er verjagte den Vṛtra, der die Flüsse umschloß. Gott Savitr mit der schönen Hand leitete (uns). Auf dessen Antrieb ziehen wir noch breit dahin.’

‘The weak Bharatas were cut on all sides like sticks for driving cattle. Vasistha became their leader. Then indeed the clans of the Tṛtsus began to spread out’⁷⁶ (RV VII 33.6)

In these examples, the Imperfect forms *aśayat* ‘lay’, *atviṣanta* ‘was agitated’, *anayat* ‘lead’ and *aprathanta* ‘spread out’ may be interpreted as spanning the entry of past situations which are represented as still holding at evaluation time. In the first three cases, an interpretation along these lines is justified by the fact that they temporally overlap with the situations denoted by the Present Indicative forms *yanti* ‘go, are going’, *ārṣanti* ‘flow, are flowing’ and *yāmas* ‘drive, are driving’ respectively. In the last example, a similar interpretation is rendered likely by the larger discourse context, where the author celebrates the deeds of the legendary sage Vasiṣṭha who, among other things, helps the Tṛtsus gain victory in the battle of the ten kings through his prayers to Indra.

In my opinion, a case could be made for the claim that the Present Indicative forms in (97a), (97b) and (97c) denote situations which result from the entry into the state or process denoted by the predicates. For instance, in (97a) the hymn mentions the well-known fight between Indra and Vṛtra which ends with the latter being defeated and scattered in pieces. The Imperfect form *aśayat* ‘lay’ could be taken to pick out the last event in this chain and the following Present Participle *śáyānam* ‘lying’ to span the state resulting from the completion of this event. A similar interpretation seems likely in (97b) and (97c). Note that all the relevant predicates are atelic. The predicate *ŚAYI-* *vṛtrás* ‘Vṛtra lie’, in the first example, may be classified as a state predicate, as the base verb *ŚAYI-* ‘lie’ represents a state verb. The same applies to the predicate *TVEṢ-* *sūrāyas* ‘the lords be agitated’ in the second example. Finally, the predicate *NAY-* *asmān* ‘lead us’ in the third example may be classified as a process predicate, as the verb *NAY-* represents an activity verb. A similar analysis could be applied to the predicate *PRATH-* *viśas* ‘the clans spread out’.

Recall from the discussion in Chapter One that the inchoative-ingressive reading was taken to presuppose that the event time is repre-

⁷⁶ Cf. Geldner (1951b: 212): ‘Wie beschnittene Stecken zum Ochsentreiben waren die schwachen Bharata’s abgeschnitten. Als Vasistha ihr Führer ward, da breiteten sich die Clane der Tṛtsu’s aus.’

sented as properly included in reference time ($t_E \subset t'$) and is conceived of as a point. If my interpretation of the above examples is correct, this would seem to imply that the Imperfect is compatible with this aspectual relation, which may be directly derived from the perfective aspect ($t_E \subseteq t'$).

There is, however, some evidence that this is not the whole story. For instance, in a few cases two or more Imperfect forms of telic predicates are used to express that the run times of the situations are partly simultaneous. Consider for instance the following examples:

- (98) a. *ṛbhūr* *víbhvā* *vájo* *devāṁ*
Ṛbhu-NOM *Vibhvan-NOM* *Vāja-NOM* *gods-ACC*
agacchata
 come-3PL.IPF
svápaśo *yajñíyaṃ* *bhāgám* *aitana //*
artists-NOM *sacrificial-ACC* *share-ACC* *reach-3PL.IPF*
 ‘As *Ṛbhu*, *Vibhvan*, *Vāja* you came to the gods, as artists you obtained a sacrificial share’⁷⁷ (RV I 161.6cd)
- b. *ví* *cármaṇī* ~ *iva* *dhiṣāṇe*
 apart *two.skins-ACC* like *heaven.and.earth-ACC*
avartayad
 make.turn-3SG.IPF
vaiśvānaró *víśvam* *adhatta* *vṛṣṇyam //*
Vaiśvānara-NOM *all-ACC* *take-3SG.IPF* *manly.power-ACC*
 ‘Turning heaven and earth apart like two hides, he took hold of all his manly power’⁷⁸ (RV VI 8.3cd)
- c. *ásvyo* *vāro* *abhavas*
 belonging.to.horses-NOM *tail.hair-NOM* *become-2SG.IPF*
tád *indra*
 then *Indra-VOC*
sṛké *yát* *tvā* *pratyáhan* (...) /
 spear-LOC when *you-ACC* *crush-3SG.IMF*

⁷⁷ Cf. Geldner (1951a: 220): ‘Als *Ṛbhu*, *Vibhvan*, *Vāja* ginget ihr unter den Göttern, als Künstler kamet ihr zu einem Opferanteil.’

⁷⁸ Cf. Geldner (1951b: 100): ‘Die beiden Welten rollte er wie Felle auseinander, *Vaiśvānara* eignete sich die volle Bullenstarke an.’

‘O Indra, you turned into a horse’s tail-hair then, when he was crushing you on his spear’⁷⁹ (RV I 32.12ab)

- d. *ásāsam* *tvā* *vidúṣi*
 instruct-1SG.IPF you-ACC know-PRF.PRT.NOM
sásminn *áhan*
 that-LOC day-LOC
ná *ma* *ásṛṇoḥ* *kím* *abhúg*
 not I-GEN listen-2SG.IPF why fruitlessly
vadāsi //
 speak-2SG.PRS.SBJ
 ‘On that day I, who knew, was instructing you, but you did not listen to me. Why will you now speak fruitlessly’⁸⁰ (RV X 95.11cd)

Clear-cut examples of this use of the Imperfect are rarely met with.⁸¹ It is reasonable to assume that the Imperfect forms *agacchata* ‘came’ and *aitana* ‘reached’ as well as *avartayad* ‘made turn’ and *adhatta* ‘took’ in examples (98a) and (98b) denote two partly simultaneous situations. This interpretation is suggested by the fact that these two pairs of sentences each describe two causally closely related events. The verbal predicates *GAM- devān* ‘come to the gods’ and *Ā-AY- yajñīyam bhāgām* ‘attain a sacrificial share’ in (98a), as well as *VÍ-VART- dhiśāṇe* ‘roll apart heaven and earth’ and *DHĀ- víśvam vṛṣṇyam* ‘take all manly power’ in (98b) may all be classified as telic. If it is correct that Imperfect forms of telic predicates can be used to denote a situation which is temporally overlapping with another situation, this would seem to provide a strong indication that the Imperfect is compatible with a progressive-processual interpretation ($t' \subset t_E$). This conclusion is corroborated by examples (98c) and (98d), which provide two

⁷⁹ Cf. Geldner (1951a: 38, cf. also Elizarenkova 1989: 41): ‘In einem Roßhaar verwandelst du dich da, als er dich gegen die Zacke schlug.’ Schmidt (1963: 299) suggests a slightly different interpretation, which apparently presupposes the same temporal relation between the situations: ‘Du wurdest ein Roßschweif, Indra, da, als er (Ahi Vṛtra) seine beiden Spitzen (= Fangzähne) gegen dich schlug.’

⁸⁰ Cf. Geldner (1951c: 302): ‘Ich warnte dich, die Wissende, an dem gleichen Tage; du hörtest nicht auf mich. Was willst du fruchtlos reden.’ Tichy (1997: 597) has essentially the same interpretation: ‘Ich habe dich (damals) belehrt, da ich es wußte, am selben Tage; du hast nicht auf mich gehört. Was willst du (jetzt) nutzlos reden?’

⁸¹ Other possible examples include RV I 62.5, I 116.10, II 13.10, II 15.2, II 15.5, II 17.5, IV 28.1, V 29.10, VI 18.3, VII 18.8, VIII 89.5.

otherwise quite rare examples of Early Vedic Imperfect forms with a conative-preliminary meaning. Specifically, the Imperfect forms *pratyáhan* ‘crushed, was crushing’ in (98c) and *ásāsam* ‘instructed, was instructing’ (98d) appear to denote situations which are represented as not being successfully completed, as implied by the following sentences. The classification of a predicate like *PRATÍ-HAN- tvā* ‘crush you’ as telic should be fairly uncontroversial. However, some readers might want to dispute the claim that the predicate *ŚĀS- tvā* ‘instruct you’ is telic, as this might seem less intuitively plausible. I take the verb *ŚĀS-* ‘instruct’ as a change of state verb which implies that the internal argument gradually evolves from a state of not being enlightened to a state of being enlightened. This verb may thus be regarded as an accomplishment and, as its internal argument is specifically quantified, the resultant verb phrase clearly qualifies as telic. Recall from the discussion in Chapter One that the conative-preliminary reading represents a contextually determined variant of the progressive-processual reading typically associated with imperfective categories. The fact that the Early Vedic Imperfect is marginally compatible with a conative-preliminary reading therefore indicates that it is compatible with the progressive aspect ($t' \subseteq t_E$).

Incidentally, the observation that the Imperfect is compatible with a progressive-processual interpretation provides us with an alternative account of its temporally inverted reading, illustrated by (94b) above. With the above discussion fresh in mind, one might be tempted to suggest that the Imperfect in such cases expresses that two situations are temporally overlapping rather than chronologically inverted. For convenience, this example is repeated here as (99a) along with a few other possible cases where two Imperfect forms apparently could be taken to invert the course of causally related events.

- (99) a. *tvām* *síndhūmr* *ávāsrjo*
 you-NOM rivers-ACC release-2SG.IPF
 'dharāco *āhann* *āhim /*
 tending.downwards-ACC smite-2SG.IPF dragon-ACC
 ‘You released the rivers that tended downwards (while) you
 smote/were smiting the dragon’⁸² (RV X 133.2ab)

⁸² Cf. Geldner (1951c: 365): ‘Du ließest die Flüsse abwärts laufen; du erschlugst den Drachen.’

- b. *tád devānāṃ devātamāya kártvam*
 that-NOM gods-GEN godliest-DAT to.be.done-NOM
ásrathnan dṛṣhā ~ ávradanta
 become.loose-3PL.IPF fixed-NOM become.soft-3PL.IPF
vīlitā /
 hard-NOM
úd gā ājad ábhinad bráhmaṇa
 up cows-ACC drive-3SG.IPF split-3SG.IPF prayer-INS
valám
 Vala-ACC
ágūhat támo vy àcakṣayat
 cover-3SG.IPF darkness-ACC apart let.appear-3SG.IPF
svàḥ //
 sun-ACC

‘That was the mission of the godliest of the gods. Fixed things became loose, hard things became soft. He drove up the cows, (while) he was killing Vala with a sacred word. He covered the darkness, letting the sun appear’⁸³ (RV II 24.3)

- c. *pūrvīr uśasaḥ śaradaś ca*
 many-ACC mornings-ACC autumns-ACC and
gūrtā
 agreeable-ACC
vṛtrāṃ jaghanvām asṛjad
 Vṛtra-ACC smite-PRF.PRT.NOM discharge-3SG.IPF
ví síndhūn /
 apart rivers-ACC
pāriṣthitā atrṇad badbadhānāḥ
 obstructed-ACC cleave-3SG.IPF suppress-PRF.PRT.ACC
sīrā índraḥ srāvitave pṛthivyā //
 streams-ACC Indra-NOM flow-INF earth-INS
 ‘Having killed Vṛtra, Indra let the rivers flow for many beloved mornings and autumns, (while) he was releasing the obstructed streams that had been suppressed to flow over the earth’⁸⁴ (RV IV 19.8)

⁸³ Cf. Geldner (1951a: 306): ‘Das war die Aufgabe für den Göttlichsten der Götter: Das feste lockerte sich, das Harte gab nach. Er trieb die Kühe heraus, spaltete mit dem Zauberwort den Vala. Er beseitigte das Dunkel, ließ die Sonne scheinen.’

⁸⁴ Cf. Geldner (1951a: 444): ‘Viele gelobte Morgen und Herbste ließ er die Wasser laufen, nachdem er den Vṛtra erschlagen hatte. Indra zapfte die umstellten eingeschwängten Flüsse an, um über die Erde zu fließen.’

According to our proposition, then, the Imperfect forms *ávāsrjas* ‘you released, were releasing’ and *áhan* ‘you smote, were smiting’ in (99a), *ājad* ‘drove, was driving’ and *ābhinad* ‘split, was splitting’ in (99b) and *asrjat* ‘let loose, was letting loose’ and *atr̥ṇat* ‘cleft, was cleaving’ represent the situations as occurring within the same time frame rather than temporally inverted. This interpretation is based on the assumption that the Early Vedic Imperfect is compatible with a progressive-processual interpretation which in some cases gives rise to a temporally overlapping reading, as just discussed. If this interpretation is correct, we dispose of a few thorny exceptions to the general rule that coordinated Imperfect forms of telic verbal predicates denote chronologically ordered situations.

The fact that the Early Vedic Imperfect is compatible with a completive-sequential reading as well as a progressive-processual reading indicates that it neither denotes the perfective nor the imperfective aspect, as neither of these aspectual categories is compatible with both these readings. We may therefore reasonably conclude that the Imperfect denotes the neutral aspect, the aspectual reference of which might be expected to give rise to a completive-sequential as well as a progressive-processual reading. If this conclusion is correct, this would indicate that the Imperfect has the same aspectual reference as the Present Indicative, which, however, was shown to sometimes be used with a multiple event or iterative-habitual reading. The data discussed so far reflect the fact that the Imperfect denotes a single, specific situation located in the past in the overwhelming majority of cases. In a few cases, however, Imperfect forms appear to be used with a multiple event reading, as illustrated by the examples in (100).

- (100) a. *yád* *vírūpā* ~ *ácaram*
 when with.changed.appearance-NOM move-1SG.IPF
mártyeṣv
 mortals-LOC
ávasam̐ *rātriḥ* *śaradaś* *cātasraḥ* /
 dwell-1SG.IPF nights-ACC autumns-ACC four-ACC
ghṛtāsya *stokām̐* *sak̐d* *áhna* *āśnāṃ*
 ghee-GEN drop-ACC once day-GEN consume-1SG.IPF
tād *evá* ~ *idám* *tātṛpāṇá*
 that-ABL so this-ACC satisfy-PRF.PRT.NOM
carāmi //
 move-1SG.PRS

‘When I roamed among mortals I spent the nights (with you) for four years. Once a day I ate a drop of ghee. Satisfied with this I (still) roam about just like that’⁸⁵ (RV X 95.16)

- b. ayā dhiyā ca gavyayā
 this-INS prayer-INS and desire.for.cows-INS
 pūruṇāman pūruṣṭuta /
 having.many.names-VOC praised.by.many-VOC.SG
 yāt sóme-soma
 when somapressing.and.somapressing-LOC
 ābhavaḥ //
 appear-2.SG.IPF

‘It was because of this prayer and desire for cows, O You whose names are many, who are praised by many, that you appeared at somapressing after somapressing’⁸⁶ (RV VIII 93.17)

- b. yó na idám-idam purā
 who-NOM we-DAT this.and.that-ACC previously
 prá váśya ānināya tám u
 forth welfare-ACC lead-3SG.PRF he-ACC now
 va stuṣe /
 you-GEN praise-1SG.PRS
 sákhāya índram ūtāye //
 friends-VOC Indra-ACC assistance-DAT
 háryaśvaṃ sátpatiṃ
 having.bay.horses-ACC mighty.lord-ACC
 carṣaṇísāhaṃ
 ruling.over.men-ACC
 sá hí śmā yó ámandata /
 he-NOM for always who rejoice-3SG.IPF

‘O Friends, I praise him, Indra, that he assist you, he who has previously led us to many an advantage, (he) whose horses

⁸⁵ Cf. Geldner (1951c: 303): ‘Als ich in anderer Gestalt unter den Sterblichen wandelte, vier Jahre lang (alle) Nächte (bei dir) wohnte, da genoß ich einmal des Tags einen Tropfen Schmalz. Davon bin ich noch jetzt gesättigt.’

⁸⁶ Cf. Geldner (1951b: 418): ‘Durch diese Dichtung und in dem Wunsch nach Rindern (geschah es), du Vielnamiger, Vielgepriesener, daß du bei jeden Soma erschienen ist.’

are bay, the mighty lord who ruled over men. For (it is) he who always rejoiced'⁸⁷ (RV VIII 21.9–10)

- d. yé cid dhí púrva
 who-NOM even for of.old-NOM
 ṛtasāpa āsan
 performing.pious.deeds-NOM be-3PL.IPF
 sākām devébhir ávadann ṛtāni /
 together.with gods-INS speak-3PL.IPF righteous-ACC
 té cid ávāsur nahy ántam
 they-NOM even cease-3PL.AOR for.not end-ACC
 āpúḥ
 reach-3PL.PRF
 'For even the sages of old who performed pious deeds, who discussed sacred (matters) with the gods, gave up, for they did not reach the end' (RV I 179.2a–c)

Other examples of this use of the Imperfect include (RV I 116.19, III 36.3, III 51.7, VII 29.4, IX 71.8, X 95.8). In the first example, the adverbial phrases *śarādaś cátaśras* 'for four years' and *sakṛd áhnas* 'once a day' indicate that the Imperfect forms *ávasam* 'I spent' and *āśnām* 'I consumed' denote a past situation which was repeated habitually. Note that this passage shows that this reading is available for telic and atelic predicates alike. The verb phrase *AŚ^l- ghṛtāśya stokām* 'consume a drop of ghee' is telic as the verb inherently denotes a change of state, and the object argument consists of a count noun with singular number marking. The verb phrase *VAS³- rātrīs* 'spend nights', on the other hand, is atelic, as its internal argument is constituted by a bare plural count noun.⁸⁸ In the second example, the iterated locative noun *sóme-some* 'at every soma pressing, soma pressing after soma pressing' implies that the Imperfect form *ābhavas* 'you appeared' has a multiple event reading. In the third example, the particle *sma* 'ever,

⁸⁷ Cf. Geldner (1951b: 326): 'Der uns früher zu diesem und jenem Glück geführt hat, den preise ich, den Indra, zu euren Beistand, ihr Genossen. Den Falbenfahrer, den rechtmäßigen Gebieter, den Völkerbezwinger, denn er ist es, der sich daran ergötzte.'

⁸⁸ Note that the adverbial phrase *śarādaś cátaśras* 'for four years' imposes a limit on the number of nights spent, hence the definite rendering in the English translation. This does not mean, however, that the predicate as such can be classified as telic, as the definiteness of the noun phrase is pragmatic in the sense discussed in Chapter Two and not explicitly expressed by any morphosyntactic marker.

always' suggests that the Imperfect form *ámandata* 'rejoiced' denotes a past situation which has been repeated an indefinite number of times. Finally, a similar interpretation is likely in the case of the Imperfect form *ávadan* 'spoke'. These data suggest that the Early Vedic Imperfect was marginally compatible with a multiple event reading.

To conclude, we have seen that the Early Vedic Imperfect has a general past time reference, but that it is not found in immediate past contexts. Moreover, it was argued that the Imperfect is compatible with a completive-sequential as well as a progressive-processual reading and that it is mostly used to denote a single, specific past situation but can also, to some extent at least, be used with an iterative-habitual reading. The semantic properties of the Imperfect may thus be formally represented as follows.

$$(101) \quad ||\text{PAST}||[\lambda P.\lambda t'.\exists e(t' \otimes t_E(e) \wedge |e| \geq 1 \wedge P(e) = T)]$$

This formalization expresses that the Early Vedic Imperfect has a past neutral meaning and implies that the cardinality of the situation is one or more. It thus appears to have exactly the same aspectual properties as the Present Indicative (cf. (89) above).

3.3 *The Non-Indicative Modal Categories of the Present Paradigm*

This section examines the semantic properties of the non-indicative modal categories belonging to the Present Paradigm. Early Vedic has four non-indicative modal categories, namely the so-called Injunctive, Subjunctive, Optative and Imperative. Although a full-fledged discussion of the Early Vedic modal system is far beyond the scope of this work, it may prove useful to briefly outline the modal properties of these categories and how each of these categories relates to the Indicative before turning to a discussion of their aspectual properties.

Recall from the discussion in Chapter One that a fundamental distinction was made between assertive, directive and interrogative clauses. Previously in this chapter it has been tacitly assumed that the Early Vedic Indicative mood, as represented by the Present Indicative and Imperfect, is the default mood in assertive and interrogative clauses. Specifically, the Indicative is thought to be neutral with regard to epistemic modality, something which in the present

context is intended to imply that a grammatical category expresses the fact that the content of a given utterance is taken for granted or represented as being the case in every possible world. The Imperative, on the other hand, may be regarded as the default mood in positive directive clauses. Indeed, a case can be made for the claim that it is restricted to positive directive clauses, as it is generally excluded from relative clauses which represent a salient subset of assertive clauses as well as interrogative clauses. The other modal categories, the Injunctive, Subjunctive and Optative, can be used in assertive, interrogative and directive clauses alike, as illustrated by the examples in (102), (103) and (104), respectively:

- (102) a. á yád dhārī indra vívratā
 to when reddish.brown-ACC Indra-VOC reluctant-ACC
vér
 incite-2SG.PRS.INJ
 ‘O Indra, when you impel the two bay horses, (...)’⁸⁹ (RV I 63.2a)

- b. yád adyá bhāgām vibhājāsi
 when today share-ACC apportion-2SG.PRS.SBJ
 n̥bhya
 men-DAT
 úṣo devi martyatrā
 Uṣas-VOC goddess-VOC among.mortal.men
 sujāte /
 well.born-VOC
 ‘O Goddess Uṣas, when you today apportion the share to the heroes among mortal men, O highborne one, (...)’⁹⁰ (RV I 123.3ab)

- c. yád yūyām pṛśnimātarō mātāsah
 when you -NOM sons.of.Pṛśni-VOC mortal-NOM
syātana /
 be-2PL.PRS.OPT
 ‘O sons of Pṛśni, if you were mortal, (...)’⁹¹ (RV I 38.4ab)

⁸⁹ Cf. Geldner (1951a: 82): ‘Wenn du, Indra, das widerspenstige Falbenpaar her-treibst, (...)’

⁹⁰ Cf. Geldner (1951a: 170): ‘Wenn du, Göttin Uṣas, heute unter den Sterblichen den Herren ihr Teil zuteilen wirst, du Edelgeborene, (...)’

⁹¹ Cf. Geldner (1951a: 48): ‘Wenn ihr Söhne der Pṛśni die Sterblichen wäret, (...)’

- (103) a. *kaḍā mārtaṃ arādhāsaṃ*
 when mortal-ACC selfish-ACC
paḍā kṣūṃpaṃ iva sphurat /
 foot-INS mushroom-ACC like spurn-3SG.PRS.INJ
 ‘When will he spurn the stingy mortal with his foot like a mushroom?’⁹² (RV I 84.8ab)
- b. *kaḍā sutāṃ tṛṣṇā́ óka*
 when juice-ACC be.thirsty-PRS.PRT.NOM house-ACC
ā gama
 to come-2SG.PRS.SBJ
índra svabdí́ ~ iva váṃsagaḥ //
 Indra-VOC panting-NOM like bull-NOM
 ‘O Indra, when will you come to the dwelling, thirsty for soma juice, like a panting bull?’⁹³ (RV VIII 33.2cd)
- c. *kaḍā na indra rāyá á*
 when we-DAT Indra-VOC wealth-GEN to
daśasyeḥ //
 oblige-2SG.PRS.OPT
 ‘When will you give of (your) wealth to us, O Indra?’⁹⁴ (RV VII 37.5d)
- (104) a. *rákṣā ca no dadúṣāṃ*
 guard-2SG.PRS.IMP and we-DAT give-PRF.PRT.GEN
śárdho agne
 host-ACC Agni-VOC
vaiśvānara prá ca tārī
 Vaiśvānara-VOC forth and extend-2SG.AOR.INJ
stāvānaḥ //
 be.praised-PRS.PRT.VOC
 ‘And protect the host of people who have been generous to us, O Agni Vaiśvānara, and protract (their life), O you who are being praised!’⁹⁵ (RV VI 8.7cd)

⁹² Cf. Geldner (1951a: 107): ‘Wann wird er den knauserigen Sterblichen wie einen Pilz mit dem Fuß wegstoßen?’

⁹³ Cf. Geldner (1951b: 345): ‘Wann wirst du durstig zum Soma als dem gewohnten Ort kommen (...)?’

⁹⁴ Cf. Geldner (1951b: 219): ‘Wann wirst du, Indra, von (deinem) Reichtum uns etwas ablassen?’

⁹⁵ Cf. Geldner (1951b: 101): ‘Und schirme die Schar derer, die uns Geschenke gemacht haben, o Agni Vaiśvānara, und lass sie fortleben, der du gepriesen wirst.’

- b. *sída* *hotaḥ* *svá* *u*
 sit-2SG.PRS.IMP priest-VOC own-LOC PTC
loké *cikityān*
 place-LOC perceive-PRF.PTC.NOM
sādāyā *yajñám* *sukṛtāsyā*
 make.sit-2SG.PRS.IMP sacrifice-ACC beneficence-GEN
yónau /
 womb-LOC
devāvīr *devān* *haviṣā*
 gratifying.the.gods-VOC gods-ACC oblation-INS
yajāsy
 sacrifice-2SG.PRS.SBJ
 ‘Sit, O Hotar, skilful on your seat! Set the sacrifice in the
 womb of beneficence! O You who gratify the gods, you shall
 sacrifice to the gods with oblation!’⁹⁶ (RV III 29.8a–c)
- c. *ā* *no* *vaha* *ródasī*
 to we-DAT carry-2SG.PRS.IMP heaven.and.earth-ACC
deváputre
 whose.sons.are.gods-ACC
mākir *devānām* *āpa* *bhūr* *ihá*
 don’t gods-GEN away become-2SG.AOR.INJ here
syāḥ //
 be-2SG.PRS.OPT
 ‘Bring us heaven and earth whose offspring are gods! Don’t be
 absent from the gods! You should be here!’⁹⁷ (RV X 11.9cd)

It is generally understood that relative clauses represent a subtype of assertive clauses. The examples in (102), where the relative conjunction *yád* ‘when, if’ unambiguously mark the sentences as relative, thus suffice to show that Injunctive, Subjunctive and Optative forms can be used in assertive clauses. As regards the examples in (103), the adverb *kadā́* ‘when?’ likewise unambiguously marks the sentences as interrogative. One may conclude therefore that these three modal categories are compatible with interrogative as well as

⁹⁶ Cf. Geldner (1951a: 362): ‘Setz dich, o Hotr, kundig auf deinen Platz; setz das Opfer in den Schoß der Guttat. Die Götter einladend mögest du den Göttern die Opferspende opfern.’

⁹⁷ Cf. Geldner (1951c: 138): ‘Fahr uns die beiden Rodasī her, deren Söhne die Götter sind! Nicht sollst du unter den Göttern fehlen; hier sollst du sein!’

assertive clauses. The examples in (104) are intended to illustrate that the Injunctive, Subjunctive and Optative are occasionally coordinated with an Imperative form, presumably inheriting the clausal modality of the preceding directive clauses. This assumption is motivated by the fact that the person and number features of the preceding Imperative form are maintained and that the situations denoted by the Injunctive form *tārīs* 'extend', *yajāsi* 'you shall sacrifice' and *syās* 'you should be' lend themselves straightforwardly to a directive interpretation. Some readers might believe this to be pure speculation, as it is not based on any explicit clause marker. However, it turns out not to be very presumptive, as a similar assumption seems to underlie the distinction between exhortative and prospective uses of the Subjunctive and Optative found in the traditional literature (cf. e.g. Macdonell 1916: 352–353, 360–362). In our opinion, the examples in (104) represent relatively clear-cut examples of what may alternatively be labeled an exhortative or a directive use of these three modal categories. Within the present framework each of these two readings is linked to a particular clause type with well-defined discourse properties, as outlined in Chapter One. A more thorough justification of this claim will have to be postponed to another occasion.

Significantly, I have found no unambiguous examples of Present Indicative forms in the type of context illustrated by (104). This fact could be interpreted as an indication that the Present Indicative is generally excluded from directive clauses, just as the Imperative is generally excluded from assertive and interrogative clauses. Leaving aside interrogative clauses for the sake of simplicity, we arrive at a system of clause modality where assertive clauses can be expressed by the Indicative, the Injunctive, the Subjunctive or the Optative, whereas directive clauses may be linked to the Imperative, the Injunctive, the Subjunctive or the Optative. According to this analysis, the Indicative may be regarded as the assertive mood *par excellence*, whereas the Imperative plays a similar role in directive clauses. This set of assumptions enables a systematic comparison of the various uses of the non-indicative modal categories, to which we now shall turn.

In assertive clauses, the Early Vedic Subjunctive typically represents the situation denoted by the predicate as a probable state of affairs, typically being associated with future time reference (cf. e.g. Delbrück 1888: 306ff., Hoffmann 1967: 236ff. and Tichy 2006: 47–50, 67ff.). The

Subjunctive thus may be taken to express future probability. The following examples illustrate this point.

- (105) a. *uvāsa* ~ *uṣā* *ucchāt* *ca* *nú*
 shine-3SG.PRF Uṣas-NOM shine-3SG.PRS.SBJ and now
 ‘Uṣas (the Dawn) has (always) shone and will shine now as well’⁹⁸ (RV I 48.3a)
- b. *cakāra* *tā* *kṛṇāvan* *nūnām*
 make-3SG.PRF these-ACC make-3SG.PRS.SBJ now
 anyā
 others-ACC
 ‘He has accomplished these things, now he will accomplish others’⁹⁹ (RV VII 26.3a)

In these cases, the Perfect Indicative forms *uvāsa* ‘has shone’ and *cakāra* ‘has done’ provide a presuppositional background for the Present Subjunctive forms *ucchāt* ‘will shine’, *kṛṇāvat* ‘will make’. In the first example, the Perfect Indicative form *uvāsa* ‘has shone’ appears to have a universal reading and may be taken as a statement about a natural law. The modally relevant function of this statement is twofold. Firstly, it adds the proposition that the sun has always shone in the past to the Common Ground, hence contributing to building up the Modal Base of the discourse fragment. It thereby constrains the set of epistemically accessible worlds which are exactly those worlds in which the sun has always shone in the past. At the same time, the natural law apparently implied by this statement may be taken to be relevant for determining the relative ordering of the epistemically accessible worlds, in the sense that the worlds in which this natural law generally holds are ranked higher and worlds where this is not the case are ranked lower. An implication of this kind thus may be taken to be included in the Ordering Source. Given this Modal Base and Ordering Source, the Present Subjunctive form *ucchāt* ‘will shine’ may be taken as a claim that the situation will take place in the future in every world where this particular natural law tends to hold. A similar analysis could be applied to the second example, where the Perfect Indicative form

⁹⁸ Cf. Geldner (1951a: 59): ‘Uṣas ist (früher) aufgeleuchtet und die Göttin wird auch jetzt aufleuchten.’

⁹⁹ Cf. Geldner (1951b: 205): ‘Er hat diese (Taten) getan und wird jetzt andere tun.’

cakāra ‘has done’ has an existential interpretation, simply expressing that the situation denoted by the verb has occurred prior to speech time. Again, the statement has a twofold modally relevant function, adding a proposition to the Common Ground and contributing to determining the relative ordering of the epistemically accessible worlds, which are the worlds in which Indra has accomplished certain deeds. Nevertheless, the Present Subjunctive form *kṛṇávat* ‘will make’ intuitively seems to express a weaker probability than the corresponding Present Subjunctive form *uchā́t* ‘will shine’ in the example just discussed. One way of accounting for this difference would be to suppose that (105b) does not imply any natural law-like element in the Ordering Source, but at present this suggestion remains stipulative. The main point here is that the Subjunctive appears to be compatible with various degrees of probability in assertive clauses.

The use of the Subjunctive in directive clauses, on the other hand, is most immediately transparent in the first person forms.¹⁰⁰ Consider the following examples:

- (106) a. *strīb́hír* *yó* *átra* *vṛṣaṇam*
 women-INS who-NOM then manly.bull-ACC
 ṛtanyád
 fight-PRS.SBJ
 áyuddho *asya* *ví* *bhajāni*
 unconquered-NOM he-GEN apart apportion-PRS.SBJ
 védaḥ //
 property-ACC
 ‘He who then should wish to fight the manly bull with women,
 his property shall I, unconquered, distribute widely’¹⁰¹ (RV X
 27.10cd)
- b. *hayé* *jāye* *mānasā* *tīṣṭha*
 o.ho wife-VOC mind-INS stand-2SG.PRS.IMP
 ghore
 cruel-VOC

¹⁰⁰ Most of the examples of second and third person forms in directive clauses cited by Delbrück (1871, 1896 etc.) and the subsequent literature are somewhat equivocal and seem to depend strongly on his assumption that the basic function of the Subjunctive was to express the will of the speaker (cf. Tichy 2006).

¹⁰¹ Cf. Geldner (1951c: 167): ‘Wer da den Bullen mit Weibern bekämpfen will, dessen Habe will ich kampflos verteilen.’

vácāṃsi miśrá kṛṇavāvahai nú /
 words-ACC mixed-ACC make-1DU.PRS.SBJ now
 ‘O ho, cruel woman, stand still with your mind! Let us now
 discuss for a while!’¹⁰² (RV X 95.1ab)

- c. jyók paśyāt sūryam uccárantam /
 long see-3SG.PRS.SBJ sun-ACC rise-PRS.PRT.ACC
 yá índrāya sunávāma íty
 who-NOM Indra-DAT extract-1PL.PRS.SBJ thus
 áha
 speak-3.SG.PRF
 ‘For long he will see the sun rise, he who speaks thus: “Let us
 extract (soma) for Indra”’¹⁰³ (RV IV 25.4bc)

Recall from the above discussion that directive clauses are taken to add properties to the To-Do List of a salient discourse referent. In cases like the one cited in (106a), the speaker uses a first person singular Subjunctive form (*bhajāni* ‘I shall distribute’) to express that he commits himself to performing a situation of the type named by the predicate. In cases like (106b) and (106c), the speaker uses a first person dual (*kṛṇavāvahai* ‘we two shall make’) or a first person plural (*sunávāma* ‘we shall extract’) to invite or exhort the audience to join the speaker in performing the situation, to which the speaker thereby also commits himself.

Having briefly discussed the most important modal functions of the Early Vedic Subjunctive, we may now proceed to a discussion of the aspectual properties of the Present Subjunctive. First, it should be noted that two or more Present Subjunctive forms are sometimes used to denote a situation which may be expected to temporally overlap with another situation. Consider the following examples:

- (107) a. púsyāt kṣéme abhí yóge
 thrive-3SG.PRS.SBJ safety-LOC onto foray-LOC
 bhavāty
 become-3.SG.PRS.SBJ

¹⁰² Cf. Geldner (1951c: 299): ‘Holla, Weib, verständig,—bleib stehend, du Böse!—laß uns doch Worte wechseln!’

¹⁰³ Cf. Geldner (1951a: 453): ‘Noch lange soll die Sonne aufgehen sehen, wer sagt: Wir wollen für Indra (Soma) auspressen.’

ubhé vṛtau saṃyati sám
 both-ACC army-ACC arrive-PRS.PRT.ACC together
jayāti /

defeat-3SG.PRS.SBJ

priyāḥ sūrye priyó agnā
 dear-NOM Sūrya-LOC dear-NOM Agni-LOC

bhavāti

become-3SG.PRS.SBJ

yá índrāya sutásomo
 who-NOM Indra-DAT whose.soma.is.extracted-NOM
 dádaśat //

honor-3SG.PRF.SBJ

‘He will thrive in peace; he will prevail in foray, he will defeat both arriving armies; he will become dear to Sūrya, dear to Agni, he who will have honored Indra’¹⁰⁴ (RV V 37.5)

b. agnír yád vér mártāya
 Agni-NOM when incite-3SG.PRS.INJ mortal-DAT
 devān

gods-ACC

sá cā bódhāti mánasā
 he-NOM and be.attentive-3SG.PRS.SBJ mind-INS

yajāti //

sacrifice-3SG.PRS.SBJ

‘When Agni summons the gods for a mortal man, he shall be attentive and sacrifice with consideration’¹⁰⁵ (RV I 77.2cd)

c. svádāti devāḥ kṛṇávad
 sweeten-3SG.PRS.SBJ god-NOM make-3SG.PRS.SBJ
 dhavīmṣy
 oblations-ACC

¹⁰⁴ Cf. Geldner (1951b: 37): ‘Er möge in Frieden gedeihen, bei einem (Kriegs)unternehmen die Oberhand behalten, zwei zusammenstoßende Heere miteinander besiegen, lieb dem Sūrya, lieb dem Agni sein, wer Indra mit ausgepreßtem Soma aufwartet.’ My translation is based partly on Geldner’s translation and partly on Venkaṭamādhava’s commentary, which interprets the sentence *abhí yóge bhavāti* as *abhi bhavati śatrūn alabdhalipsāyām*, i.e. ‘he overcomes the enemies in an attempt to gain what has not been gained’ (cf. Vishva Bandhu 1964a: 1753).

¹⁰⁵ Cf. Geldner (1951a: 100): ‘Wenn Agni für den Sterblichen die Götter ladet, so möge er aufmerksam sein und mit Überlegung opfern.’

ávatām dyāvāpṛthiví hávaṃ
 help-3DU.PRS.IMP heaven.and.earth-NOM call-ACC
 me //
 I-GEN
 ‘The god will sweeten and make oblations. Heaven and Earth
 shall hear my call!’¹⁰⁶ (RV X 70.10cd)

- d. vayām náma prá bravāmā ghṛtásya ~
 we-NOM name-ACC forth say-1PL.PRS.SBJ ghee-GEN
 asmín yajñé dhārayāmā
 this-LOC sacrifice-LOC hold-1PL.PRS.IMP
 námobhiḥ /
 adorations-INS
 úpa brahmá śṛṇavac
 to Brahman.priest-NOM listen-3SG.PRS.SBJ
 chasyámānaṃ
 be.uttered-PRS.PRT.ACC
 ‘We will proclaim the name of Ghṛta/Ghee; we will keep him
 in this sacrifice with adorations. The Brahman Priest shall
 listen to it while it is being uttered’¹⁰⁷ (RV IV 58.2a–c)

Other examples include (RV III 53.4, V 45.5, VIII 24.13, VIII 31.1, VIII 69.9, X 10.10, X 11.8, X 27.2). In the first three examples, the Present Subjunctive forms *púṣyāt* ‘he will thrive’, *bhavāti* ‘he will become’, *bódhāti* ‘he will be attentive’, *svádāti* ‘he will sweeten’, *bravāma* ‘we will proclaim’ and *dhārayāma* ‘we will hold’ denote situations which may be understood as temporally overlapping with the situations denoted by the Present Subjunctive forms *jayāti* ‘he will conquer’, *yajāti* ‘he will sacrifice’, *kṛṇāvat* ‘he will make’, *dhārayāma* ‘we will hold’ and *śṛṇavat* ‘he shall listen’, respectively. Apart from *PRA-BRAV*- *nāma ghṛtásya* ‘proclaim Ghṛta’s name’ and *UPA-ŚRAV*- *śasyámānaṃ* ‘listen to (it) being uttered’ which both may be classified as telic, all the relevant predicates are atelic. This reflects that unequivocal examples of Present Subjunctive forms of telic predicates are extremely rare in this type of context. The data in (107) may be taken to suggest that the Present

¹⁰⁶ Cf. Geldner (1951c: 248): ‘Der Gott mache schmackhaft und bereite die Opferspenden. Himmel und Erde mögen meinen Ruf bevorzugen!’

¹⁰⁷ Cf. Geldner (1951a: 488): ‘Wir wollen den Namen des Ghṛta verkünden; bei diesem Opfer wollen wir ihn mit Ehrerbietung festhalten. Wenn er ausgesprochen wird, soll der Brahmanpriester darauf hören.’

Subjunctive is compatible with a progressive-like interpretation ($t' \subset t_E$).

Moreover, Present Subjunctive forms are occasionally used to denote a situation which is represented as having terminated prior to another situation located after evaluation time. Consider the following examples:

- (108) a. *yadā śṛtām kṛṇávo jātavedó*
 when mature-ACC.SG make-2SG.PRS.SBJ Jātavedas-VOC
'thā ~ im enaṃ prá hiṇutāt
 then he-ACC this-ACC forth send-2SG.PRS.IMP
pitṛbhyaḥ //
 father-DAT.PL
 'When you have ripened him, O Jātavedas, then send him to the fathers!'¹⁰⁸ (Rigveda X 16.1cd)
- b. *yadā gáčchāty ásunītim etām*
 when come-3SG.PRS.SBJ world.of.spirits-ACC this-ACC
áthā devānāṃ vaśanīr bhavāti //
 then gods-GEN subject-NOM become-3SG.PRS.SBJ
 'When he arrives to the world of spirits, then he'll become a slave of the gods'¹⁰⁹ (RV X 16.2cd)
- c. *viśás ca yásyā átithir*
 clan-GEN and who-GEN guest-NOM
bhávāsi
 become-2SG.PRS.SBJ
sá yajñéna vanavad
 he-NOM sacrifice-INS conquer-3SG.PRS.SBJ
deva mártān //
 god-VOC mortals-ACC
 'He whose clan you will visit will prevail over (other) mortals by sacrifice'¹¹⁰ (RV V 3.5bc)

¹⁰⁸ Cf. Geldner (1951c: 147): 'Wenn du ihn gar gemacht haben wirst, o Jātavedas, dann entlaß ihn zu den Vatern.'

¹⁰⁹ Cf. Geldner (1951c: 147): 'Wenn er dieses Seelengeleite antreten wird, dann soll er Höriger der Götter werden.'

¹¹⁰ Cf. Geldner (1951b: 6): 'Und wes Clanes Gast du sein wirst, der wird mit seinem Opfer die (anderen) Sterblichen überbieten.'

Other examples include (RV I 97.4, I 113.10, III 53.4, X 2.4, X 45.10). In these cases, the situations denoted by the Present Subjunctive forms *kṛṇāvas* ‘you will make’, *gácchāti* ‘he will come’ *bhāvāsi* ‘you will become’ may be understood as necessary causal prerequisites for the situations denoted by the following Present Imperative and Present Subjunctive forms *hiṇutāt* ‘send!’, *bhavāti* ‘will become’ and *vanavat* ‘will conquer’, respectively. In other words, the latter forms presuppose that the situation denoted by the preceding forms has been completed prior to the situations they denote, as indicated also by the relative conjunction *yadā* ‘when’ and the correlative conjunction *áthā* ‘then’ (cf. Klein 1985b: 78). Note that the predicates denoted by the first set of forms all may be characterized as telic. There appear to be no unequivocal examples of Present Subjunctive forms of atelic predicates in the types of contexts illustrated in (108). This use of the Present Subjunctive resembles the completive-sequential reading of the Present Indicative and the Imperfect and may be taken as an indication that the Present Subjunctive is compatible with the implicature that event time is properly included in reference time ($t_E \subset t$). The fact that Present Subjunctive forms are vague between a progressive-like and a sequential-like reading suggests that it denotes the neutral aspect ($t \otimes t_E$), just like the Present Indicative and the Imperfect.

Significantly, Present Subjunctive forms are occasionally found in contexts that explicitly presuppose a multiple event reading, as illustrated by the examples in (109):

- (109) a. *agnínā rayím aśnavat*
 Agni-INS wealth-ACC obtain-3.SG.PRS.SBJ
póṣam evá divé-dive /
 growth-ACC so day.by.day-LOC
 ‘Truly, by Agni (the sacrificer) will obtain wealth (and)
 growth day by day’¹¹¹ (RV I 1.3ab)
- b. *yás tvám agna inádhate*
 who-NOM you-ACC Agni-VOC ignite-3SG.PRS
yatásruk
 with.raised.ladle-NOM

¹¹¹ Cf. Geldner (1951a: 2): ‘Durch Agni möge er [der Opfernde] Reichtum und Zuwachs Tag für Tag erlangen.’

trís te ánnam *kṛṇávat*
 thrice you-DAT food-ACC make-3SG.PRS.SBJ
 sásminn áhan /
 this-LOC day-LOC
 sá sú dyumnáir abhy àstu
 he-NOM well glories-INS over be-3SG.PRS.IMP
 prasákṣat
 prevail-AOR.PRT.NOM
 táva krátvā jātavedas
 you-GEN insight-INS Jātavedas-VOC
 cikivān //

perceive-PRF-PTC.NOM

‘O Agni, he who will ignite you with raised sacrificial ladle (and) thrice a day will prepare food for you, he shall revel in glory having prevailed, skilful by your insight, O Jātavedas!’¹¹² (RV IV 12.1)

- c. yád vaś citráṃ
 which-NOM you-DAT excellent-ACC
 yugé-yuge
 generation.by.generation-LOC
 návyam *ghóṣād* ámartyam /
 new-ACC sound-3SG.PRS.SBJ immortal-NOM
 ‘The (Word) which excellent, immortal will resound for you anew generation after generation, (...)’¹¹³ (RV I 139.8de)

- d. á no bhadráḥ krátavo yantu
 to we-ACC good-NOM plans-NOM come-3PL.PRS.IMP
 viśvátó
 from.all.sides
 ’dabdhāso áparitāsa
 unimpaired-NOM unobstructed-NOM
 udbhídaḥ /
 bursting.through-NOM

¹¹² Cf. Geldner (1951a: 432): ‘Wer dich, Agni, mit bereitgehaltendem Schmalzlöffel anzündet, dir dreimal am gleichen Tage Speise bereitet, der soll fein an Ruhmesglanz als siegreicher (Meister) überlegen sein, weise durch deine Einsicht, o Jātavedas.’

¹¹³ Cf. Geldner (1951a: 194): ‘Das wundervolle, unsterbliche (Wort), das für euch in jedem Menschengeschlecht aufs neue erklingen soll, (...)’

devā no yāthā sādām íd
 gods-NOM we-DAT that always indeed
 vṛdhé áśann
 grow-INF be-3PL.PRS.SBJ
 áprāyuvō rakṣitāro divé-dive //
 assiduous-NOM protectors-NOM day.by.day-LOC
 ‘Good thoughts shall come to us from all sides, unperturbed,
 unobstructed, bursting through, that the gods will always
 be of benefit to us, as assiduous protectors day by day’¹¹⁴
 (RV I 89.1)

Other examples include (RV I 72.3, X 95.18). In these examples, the adverbs *divé-dive* ‘day by day’, *trís sásminn áhan* ‘thrice a day’, *yugé-yuge* ‘generation after generation’ and *sādām* ‘always’ unambiguously express that the Present Subjunctive forms *áśnavat* ‘he will obtain’, *kṛṇávat* ‘he will make’, *ghoṣāt* ‘will resound’ and *ásan* ‘they will be’ denote a situation which may be expected to continually recur in the future or, in the case of (109d), a permanent state which may be expected to hold at all times in the future. These data suggest that the Present Subjunctive is compatible with both a single event and a multiple event reading. We may thus ascribe the same aspectual properties to the Present Subjunctive as we have to the Present Indicative and Imperfect. The semantic properties of the Present Subjunctive are tentatively formalized in (110).

$$(110) \text{ } [_{MP} \forall w \in W' \subset W_{[TP]} || \text{FUT} || [\lambda P. \lambda t'. \exists e (t' \otimes t_E(e) \wedge |e| \geq 1 \wedge P(e) = T)]]^w]$$

Apart from the elements by now familiar from the previous discussion, the representation in (110) includes the universal quantifier \forall , a world parameter w and a set of ordered epistemically accessible worlds W , a set of highest ranked epistemically accessible worlds W' which is a proper subset of W , and a world index w at the top of the right end. These elements are introduced in order to capture the modal properties of the Subjunctive. It was briefly noted above that the Subjunctive expresses future probability. Recall from the discussion in Chapter One that probability was defined as universal quantification over

¹¹⁴ Cf. Geldner (1951a: 114): ‘Gute Gedanken sollen uns von allen Seiten kommen, unbeirrte, unerreichte, durchschlagene, auf daß die Götter uns immerdar zum Segen seien und unablässige Beschützer Tag für Tag.’

the highest ranked accessible worlds. The first part of the proposed formalization is intended to capture this definition. Note that the above definition of the Present Subjunctive presupposes that it is restricted to future probability. Future research will show whether this restriction is correct.

We may now proceed to a discussion of the semantic properties of the Early Vedic Present Optative. Just like the Subjunctive, the Optative is compatible with assertive as well as directive clauses. In positive assertive clauses, the Optative is typically used to express that a situation expresses a possible state of affairs (cf. e.g. Delbrück 1888: 330ff., Macdonell 1916: 360ff.). Consider the following examples.

- (111) a. *sómāpūṣaṇāv* *ávataṃ* *dhíyaṃ*
 Soma.and.Puṣan-VOC favour-2DU.PRS.IMP prayer-ACC
 me
 I-GEN
yuvābhyāṃ *vísavāḥ* *pṛtanā* *jayema* //
 you.two-INS all-ACC battles-ACC win-1.PL.PRS.OPT
 ‘O Soma and Puṣan, favour my prayer. With you two we
 could win all battles’¹¹⁵ (RV II 40.5cd)
- b. *yád* *agne* *syám* *ahám* *tvám*
 if Agni-VOC be-1SG.PRS.OPT I-NOM you-NOM
tvám *vā* *ghā* *syá* *ahám* /
 you-NOM or surely be-1SG.PRS.OPT I-NOM
syúṣ *ṭe* *satyá* *ihá* ~ *āśíṣaḥ* //
 be-OPT you-GEN true-NOM here prayers-NOM
 ‘O Agni, if I were you or you were me, all your wishes here
 would be fulfilled’¹¹⁶ (RV VIII 44.23)

In these cases, the Present Optative forms *jayema* ‘we could win’ and *syúṣ* ‘they may be’ both denote a possible state of affairs which is contingent on some other state of affairs, specified by the immediately preceding sentences. These sentences determine the respective Modal Bases and Ordering Sources of the sentences in which the Optative

¹¹⁵ Cf., however, Geldner (1951a: 328): ‘Soma und Puṣan, begünstiget mein Gedicht! Mit euch wollen wir alle Kämpfe siegreich bestehen.’

¹¹⁶ Cf. Geldner (1951b: 360): ‘Wenn ich du wäre, Agni, oder du wärest ich, dann würden deine Wünsche hier in Erfüllung gehen.’

forms are found. Recall from Chapter One that possibility in the present context is defined in terms of existential quantification over the epistemically accessible worlds. In the first case, this set would include every world in which Soma and Puṣan favor the prayer of the speaker. In the second case, the relevant worlds are those where the speaker and Agni mutually exchange identity. In each of these cases, the Optative forms are taken to express that there is at least one world in which the group to which the speaker belongs wins all battles and in which all Agni's wishes would be fulfilled. Intuitively, there seems to be a difference between the two examples, in that the first example expresses a stronger possibility than the second example. It remains unclear how this difference can be accounted for within the framework developed so far. However, a full-fledged semantic analysis of the Optative is far beyond the scope of the present work and a further refinement of the analysis given here will have to be reserved for a future occasion (cf., however, Chapter Four below).

As regards the aspectual properties of the Early Vedic Present Optative, we may first note that it is occasionally used to denote a situation which temporally overlaps with another situation. Consider the following examples (cf. also (111b) above):

- (112) a. yád indra yávasas tvám
 If Indra-VOC as.much-GEN you-NOM
 etāvad ahám íśīya /
 so.much-ACC I-NOM own-1SG.PRS.OPT
 stotāram íd didhiṣeya
 singer-ACC indeed wish.to.bestow-1SG.PRS.OPT
 radāvaso
 dispensing.wealth-VOC
 ná pāpatvāya rāsīya //
 not misery-DAT give-1SG.AOR.OPT
 'If, Indra, I had owned as much as you, I would indeed wish
 to be generous to the singer, O dispenser of wealth. I would
 not let him fall into misery'¹¹⁷ (RV VII 32.18)

¹¹⁷ Cf. Geldner (1951b: 210): 'Wenn ich, Indra, so viel zu eigen hätte wie du, so würde ich den Sänger mir zu gewinnen suchen, du Schatzspender; nicht würde ich ihn dem Elend preisgeben.'

- b. svayám só asmád á nidó
 self-NOM he-NOM us-ABL from scornful.person-GEN
 vadháir *ajeta* durmatím /
 weapons-INS drive-3SG.PRS.OPT hatred-ACC
 áva *sraved* aghásaṁso
 down flow-3SG.PRS.OPT talking.scornfully-NOM
 'vatarám
 further.down
 áva kṣudrám iva *sravet* //
 down bug-NOM like flow-3SG.PRS.OPT
 'He himself shall drive the hatred of the scornful person
 away from us with his weapons. He who talks scornfully
 shall fall further down, like a bug he shall fall down'¹¹⁸ (RV I
 129.6d–g)
- c. ádhā mātúr uśasaḥ saptá víprā
 and mother-ABL Uśas-ABL seven sages-NOM
jáyemahi prathamā vedhāso
 be.born-1PL.PRS.OPT first-NOM pious-ACC
 nṛ̥ṇ /
 men-ACC
 divás putrá āṅgirasō
 heaven-GEN sons-NOM Aṅgiras-NOM
bhavema ~
 become-1PL.PRS.OPT
 ádriṁ rujema dhanínāṁ
 rock-ACC split-1PL.PRS.OPT containing.treasures-ACC
 śúcāntaḥ //
 fervent-NOM
 'May we now be born from mother Uśas as the seven sages,
 the first among pious men, becoming the sons of heaven,
 the Aṅgiras'; may we fervently split the rock that contains
 treasures'¹¹⁹ (RV IV 2.15)

¹¹⁸ Cf. Geldner (1951a: 181): 'Er möge selbst mit den Waffen die Tadler, die Mißgunst von uns treiben. Der Übelredende soll ganz vergehen, wie Ungeziefere vergehen.'

¹¹⁹ Cf. Geldner (1951a: 418): 'Und wir möchten als die sieben Sänger von der Mutter Uśas geboren werden als die ersten Meister unter den Männern. Wir möchten des Himmels Söhne, die Aṅgiras' werden und inbrünstig den Fels mit dem Schatz erbrechen.'

Other examples include (RV I 41.9, I 102.4, I 114.2, I 136.6, I 152.6, II 8.6, II 32.1, VIII 12.21, X 10.9, X 32.8, X 117.4, X 117.5). In these examples, the Present Optative forms *īśīya* 'I may own', *ajeta* 'he may drive', *śravet* 'he may flow' and *jāyemahi* 'we may be born' may be taken to denote a situation which is temporally overlapping with the situation denoted by the following Present Optative forms, *didhiṣeya* 'I may wish to bestow', *śravet* 'he may flow' (2x) and *bhavema* 'we may become'. Significantly, the first verbal predicate in (112a) is atelic, whereas the first verbal predicates in (112b) and (112c) are telic. The above data therefore indicate that Present Optative forms of atelic as well as telic predicates may be used with a temporally overlapping reading, something which in turn would seem to imply that they are compatible with a progressive-processual reading ($t' \subset t_E$).

It is important to note, however, two or more Present Optative forms are also occasionally used to denote two or more temporally successive situations. Consider the examples in (113):

- (113) a. *sudevó* *adyá* *prapáted*
 erotic.lover-NOM today fly.away-3SG.PRS.OPT
ánāvṛt
 not.returning-NOM
parāvátam *paramám* *gántavá* *u /*
 distance-ACC remotest-ACC come-INF and
ádhā śáyīta *nírṛter* *upásthé*
 and lie-3SG.PRS.OPT goddess.of.death-GEN lap-LOC
'dhā ~ enam *vṛkā* *rabhasáso*
 and he-ACC wolves-NOM rapacious-NOM
adyúḥ //
 eat-3PL.PRS.OPT
 'Thy lover would today commit suicide, never to return, in order to go into the furthest distance; (and) might he lie in the lap of destruction, and might rapacious wolves eat him.'¹²⁰
 (RV X 95.14 after Klein 1985b: 102)

¹²⁰ Cf. Geldner (1951c: 303): 'Liefte heute dein Abgott davon auf Nimmerwiederverkehr, um in die fernste Ferne zu gehen, und ruhte er im Schoße des Todes und fraßen ihn dann die reißende Wölfe.'

- b. tébhir vayám suṣakháyo
 they-INS we-NOM good.friends-NOM
bhavema
 become-1PL.PRS.OPT
 tárantō víśvā duritā
 cross-PRS.PRT.NOM all-ACC difficulties-ACC
syāma //
 be-1PL.PRS.OPT
 ‘May we become good friends with them, may we be (able)
 to overcome all difficulties’¹²¹ (RV X 31.1cd)
- c. ápa ~ asmāt práyān ná tát
 away he-ABL go.forth-3SG.PRS.OPT not that-NOM
 óko asti
 house-NOM be-PRS
 prṇántam anyám áraṇam cid
 fill-PRS.PRT.ACC another-ACC foreign-ACC even
icchet //
 seek-3SG.PRS.OPT
 ‘He should go away from him! That is not a dwelling. He
 should seek another patron, even a stranger’¹²² (RV X 117.4cd)

Other examples include (RV I 8.5, IV 50.6, V 51.15, VI 48.2, X 102.11, X 106.11). In these cases, the Present Optative forms *prapáted* ‘he may fly away’, *bhavema* ‘we may become’ and *práyān* ‘he may go forth’ may be plausibly interpreted as denoting a situation which has been successfully terminated prior to the situation denoted by the Present Optative forms *śáyīta* ‘he may lie’, *syāma* ‘we may be’ and *icchet* ‘he may seek’, respectively, which in turn causally depend on the preceding situations. The fact that the Present Optative is occasionally used with a sequential reading indicates that it is compatible with a perfective-like interpretation ($t_E \subset t'$). It thus seems to have the same range of contextually determined aspectual readings as the Present Indicative, the Imperfect and the Present Subjunctive and to denote the neutral aspect ($t' \otimes t_E$).

¹²¹ Cf. Geldner (1951c: 178): ‘An ihnen wollen wir gute Freunde haben, alle Fährlichkeiten möchten wir überwinden.’

¹²² Cf. Geldner (1951c: 343): ‘Er soll sich von ihm abwenden, hier ist seines Bleibens nich; er suche einen anderen Geber, auch wenn der ein Fremder ist.’

Significantly, Present Optative forms are also occasionally used with an iterative-habitual reading. Consider the following examples:

- (114) a. *góbhiḥ śyāma yaśáso jáneṣv á*
 cows-INS be-1PL.PRS.OPT excellent-NOM men-LOC at
sádā devāsa ṛlayā sacemahi //
 always gods-VOC Ṛā-INS associate-1PL.PRS.OPT
 ‘May we be preeminently rich in cows among men, may we
 always associate with Ṛā, O Gods’¹²³ (RV X 64.11cd)
- b. *bṛhaspátiṃ vṛṣaṇaṃ śúrasātau*
 Bṛhaspati-ACC bullish-ACC din.of.battle-LOC
bhāre-bhare ánu madema
 war.after.war-LOC after rejoice-1PL.PRS.OPT
jīṣṇúm //
 victorious-ACC
 ‘May we in the din of battle, in war after war praise Bṛhaspati,
 the bullish one, as victorious’¹²⁴ (RV X 67.9cd)
- c. *ká iṃ stavat káḥ*
 who-NOM he-ACC praise-3SG.PRS.SBJ who-NOM
prṇāt kó yajāte
 fill-3SG.PRS.SBJ who-NOM sacrifice-3SG.PRS.SBJ
yád ugrám ín maghāvā
 if strong-ACC.SG indeed bounteous-NOM.SG
viśvāhā ávet /
 always favour-3SG.PRS.OPT
 ‘Who would praise him, who would cherish (him), who
 would sacrifice, if the bounteous one always would favour
 the strong?’¹²⁵ (RV VI 47.15ab)

Other examples include (RV II 18.8, VI 50.9, VI 52.5, VII 2.3, VII 4.4, VIII 19.28). In these examples, the Present Optative forms *sacemahi* ‘we may associate’, *madema* ‘we may enjoy’ and *ávet* ‘he may favor’ are modified by the adverbs *sádā* ‘always’, *bhāre-bhare* ‘in war after

¹²³ Cf. Geldner (1951c: 237): ‘Durch Rinder(besitz) wollen wir bei den Leuten angesehen sein. Immerdar möchten wir mit der Ṛā zusammen sein, o Götter.’

¹²⁴ Cf., however, Geldner (1951c: 243): ‘(...) wollen wir dem Bṛhaspati, dem Bullen, dem in Zweikampf, in jedem Streite siegreichen zujubeln.’

¹²⁵ Cf. Geldner (1951b: 145): ‘Wer möchte ihn preisen, wer (ihm) spenden, wer opfern, wenn der Gabenreiche allezeit nur den Gewaltigen begünstigt?’

war' or *viśvāhā* 'always' which imply a habitual or an iterative reading. The fact that the underlying predicates SAC- *īlayā* 'follow Iḍā', ANU-MAD- *bṛhaspātiṃ jiṣṇúm* 'praise Bṛhaspati as victorious' and AV¹-*ugráṃ* 'favor the strong' all are atelic is significant, as there seem to be no unequivocal examples of Present Optative forms of telic predicates in this type of context in Early Vedic. Note also that Present Optative forms of change of state verbs are exceedingly rare in Early Vedic. Nevertheless, the data in (114) indicate that the Present Optative was compatible with the implicature that the cardinality of the situation was more than one. The semantic properties of the Present Optative thus may be formalized in the following manner:

$$(115) [\text{MP} \exists w \in W' \subset W_{\text{TP}} \emptyset [\lambda P. \lambda t'. \exists e (t' \otimes t_e(e) \wedge |e| \geq 1 \wedge P(e) = T)]]^w]$$

This definition is intended to capture the basic observation that the Present Optative expresses neutral aspect and probability. Recall from the discussion in Chapter One that probability was understood as existential quantification over the highest ranked set of epistemically available possible worlds. This definition is implicit in the first part of this semantic definition. Note that I assume that the Optative is indifferent to tense distinctions. This assumption is motivated by the fact that it is compatible with present as well as future time reference. A further refinement of this assumption is beyond the scope of this work.

Let us turn to a brief discussion of the semantics of the Present Imperative. The Imperative differs from other modal categories in several important respects. It has already been noted that the Imperative is restricted to directive sentences, being the directive mood *par excellance*. Recall from the discussion in Chapter One that the canonical function of directive clauses is taken to consist in adding properties to the To-Do List of a salient discourse referent, as opposed to assertive clauses which canonically add propositions to the Common Ground and interrogative clauses which typically add questions to the so-called Question List. The Early Vedic Imperative is used to express various types or degrees of priority modality (cf. also Macdonell 1916: 348–349, Baum 2006: 11ff.). Consider for instance the following examples:

- (116) a. *púrūravaḥ* *púnar ástaṃ* *párehi*
 Purūravas-VOC back home-ACC go.away-2SG.PRS.IMP

durāpanā vāta iva ~ ahām
 hard.to.get-NOM.SG wind-NOM like I-NOM
 asmi //
 be-1SG.PRS

‘Purūravas, go back home again! Like the wind I am impossible to catch’¹²⁶ (RV X 95.2cd)

- b. āpāḥ sómam ástam indra
 drink-2SG.AOR Soma-ACC home-ACC Indra-VOC
 prá yāhi
 forth drive-2SG.PRS.IMP
 kalyāṇīr jāyā surāṇam grhé
 beautiful-NOM wife-NOM joy-NOM house-LOC
 te /
 you-GEN

‘You have drunk soma, go home Indra! A beautiful wife and joy is in your house’¹²⁷ (RV III 53.6ab)

- c. índra sómam imám piba
 Indra-VOC soma-ACC this-ACC drink-2SG.PRS.IMP
 mādhumantaṁ camū sutám /
 containing.sweetness-ACC soma.vessel-LOC extracted-ACC
 asmé rayīm ní dhāraya
 we-DAT riches-ACC to bring-2SG.PRS.IMP
 ‘O Indra, drink this soma which has been extracted in the soma vessel! Bring riches to us!’¹²⁸ (Rigveda X 24.1a–c)

Pragmatically speaking, the Present Imperative form *paréhi* ‘go away!’ in the first example represents a rejection rather than an order, as suggested by the following sentence, where the nymph Urvaśī makes it clear that Purūravas does not have any chance of getting back together with her. In the second example, the Present Imperative form *prá yāhi* ‘go!’ may be taken as a proposal motivated by the following sentence. Finally, the Present Imperative forms *piba* ‘drink!’ and *dhāraya* ‘bring!’

¹²⁶ Cf. Geldner (1951c: 299): ‘Purūravas, geh wieder fort nach Hause! Schwer bin ich einzuholen wie der Wind.’

¹²⁷ Cf. Geldner (1951a: 392): ‘Du hast jetzt Soma getrunken, fahr heim, Indra! Ein schönes Weib und Lust ist dir zu Hause.’

¹²⁸ Cf. Geldner (1951c: 161–162): ‘Indra, trink diesen süßen Soma, der in dem Camūgefäß ausgepreßt ist. Uns verleih Reichtum.’

‘Drink boldly the soma in the jar, O Indra, as the Vṛtrakiller in the battle for riches, O Hero, pouring in (the soma) at the midday soma-pressing!’¹²⁹ (Rigveda VI 47.6a–c)

- b. tvám naḥ paścād adharād
 you-NOM we-ACC behind-ABL below-ABL
 uttarāt purá
 above-ABL front-ABL
 índra ní *pāhi* viśvátaḥ /
 Indra-VOC down protect-2SG.PRS.IMP from.all.sides
 āré asmát *kṛṇuhi* dáivyam
 far.away we-ABL make-2SG.PRS.IMP godly-ACC
 bhayám
 fear-ACC
 āré hetír ádevīḥ //
 far.away missile.weapons-ACC godless-ACC
 ‘Indra! Protect us from behind, from below from above, in front, from all sides! Make any godly danger distant, make godless missiles distant!’¹³⁰ (RV VIII 61.16)

- c. índra prá naḥ puraetā iva
 Indra-VOC forth we-DAT guide-NOM like
paśya
 look-2SG.PRS.IMP
 prá no *naya* pratarám
 forth we-ACC lead-2SG.PRS.IMP further
 vāsyo áccha /
 welfare-ACC towards
 ‘Indra! Look out for us as a guide, lead us to welfare again!’¹³¹
 (RV VI 47.7ab)

Other examples include (RV II 36.4, III 36.3, IV 2.20, IV 32.20, VI 16.30, VIII 44.11, IX 82.4, X 51.5). In these cases, the Present Imperative

¹²⁹ Cf. Geldner (1951b: 144): ‘Trink herzhaft den Soma aus der Schale, Indra, du der Feindetöter in der Anhäufung von Schätzen. Schütte (ihn) in dich bei dem mit-täglichen Trankopfer!’

¹³⁰ Cf. Geldner (1951b: 383): ‘Schütze du uns von hinten, unten, oben, vorn, auf allen Seiten, Indra! Halte fern von uns die göttliche Gefahr, fern die un-göttlichen Geschosse!’

¹³¹ Cf. Geldner (1951b: 144): ‘Indra! Schau für uns aus wie ein Wegführer, geleite uns weiter zum Glück (...)!’

forms *piba* ‘drink!’, *pāhi* ‘protect!’ and *paśya* ‘look!’ may be taken to denote situations which can be reasonably understood as temporally overlapping with the situations denoted by the Present Imperative forms *vṛṣasva* ‘pour!’, *kṛṇuhi* ‘make!’ and *naya* ‘lead!’. Data like these indicate that the Present Imperative is compatible with a progressive-like interpretation ($t' \subset t_E$).

There is some evidence, however, that Present Imperative forms can also be used to denote two or more events in a sequence. Consider the following examples:

- (118) a. *ā* no *yāhi* parāvāto
 hither we-ACC go-2.SG.PRS.IMP distance-ABL
 hāribhyām haryatābhiyām /
 bay.horses-INS.DU dear-INS.DU
 imām indra sutām *piba* //
 this-ACC Indra-VOC potion-ACC drink-2.SG.PRS.IMP
 ‘Come hither to us from afar with your two dear bay horses!
 Drink this potion here, O Indra!’¹³² (RV VIII 6.36)

- b. *bhindhī* víśvā āpa dvīṣaḥ
 split-2SG.PRS.IMP all-ACC away enemies-ACC
 pāri bādho *jahī*
 round suppress-2SG.PRS.INJ smite-2SG.PRS.IMP
 mṛdhaḥ /
 foes-ACC
 vāsu spārhām tād ā
 riches-ACC desireable-ACC that-ACC to
 bhara //
 carry-2SG.PRS.IMP
 ‘Drive away all enemies! Suppress, smite the foes! Bring the
 desireable booty hither!’¹³³ (RV VIII 45.40)

- c. *yunākta* sīrā ví yugā
 yoke-2PL.PRS.IMP sharp-ACC apart yoke-ACC
 tanudhvaṃ
 extend-2PL.PRS.IMP

¹³² Cf. Geldner (1951b: 298): ‘Komm zu uns aus der Ferne mit den beliebten Falben; trink, Indra, diesen Soma!’

¹³³ Cf. Geldner (1951b: 363): ‘Schlage alle Feinde ab, (halte) die Bedränger fern, erschlag die Verächter! Das begehrenswerte Gut, das bring mit!’

kṛté yónau vapata ~ ihá bíjam /
 made-LOC womb-LOC strew-2PL.IMP here seed-ACC
 'Yoke the two sharp ones! Stretch out the two yokes! Strew
 seed here in the furrow that is made!'¹³⁴ (RV X 101.3ab)

Other examples include (RV I 104.9, I 108.2, II 11.11, III 32.1, III 36.2, VI 41.4, VI 41.5, VII 25.2). In these cases, the Present Imperative forms *yāhi* 'drive!', *jahí* 'smite!', *yunákta* 'yoke!' and *tanudhvam* 'stretch!' refer to situations that precede the situations denoted by the Present Imperative forms *piba* 'drink!', *bhara* 'carry!', *tanudhvam* 'stretch!' and *vapata* 'stretch!' respectively. These data indicate that the Early Vedic Present Imperative is compatible with a completive-sequential reading ($t_E \sqsubset t'$).

Finally, Present Imperative forms are sometimes used with an iterative-habitual meaning. Consider these examples:

- (119) a. *addhí* tṛṇam aghnye viśvadānīm
 eat-2SG.PRS.IMP grass-ACC cow-VOC always
piba śuddhām udakām
 drink-2SG.PRS.IMP pure-ACC water-ACC
 ācārantī //
 approach-PRS.PRT.NOM
 'O cow, always eat grass! Drink pure water, coming hither!'¹³⁵
 (RV I 164.40cd)
- b. trír á diváh savitar vāryāni
 thrice at day-GEN Savitar-VOC goods-ACC
 divé-diva á suva trír
 day.by.day-LOC to extract-2SG.PRS.IMP thrice
 no áhnaḥ /
 we-DAT day-GEN
 'Thrice a day, O Savitar, procure goods for us day by day,
 thrice a day'¹³⁶ (RV III 56.6ab)

¹³⁴ Cf. Geldner (1951c: 315): 'Schirret die Pfüge an, stechet die Joche auf! Sät hier in den bereiteten Schoß den Samen!'

¹³⁵ Cf. Geldner (1951a: 235): 'Friß allezeit Gras, o Kuh, trink reines Wasser.'

¹³⁶ Cf. Geldner (1951a: 404): 'Dreimal des Tages weise uns, o Savitr, wünschenswerte Dinge zu, Tag für Tag, dreimal am Tage!'

- c. śívás tvaṣṭar ihá ~ á
 auspicious-NOM Tvaṣṭar-VOC here to
 gahi
 come-2SG.AOR.IMP
 vibhúḥ póṣa utá tmánā /
 effective-NOM growth-LOC and self-INS
 yajñé-yajñe na úd
 sacrifice.after.sacrifice-LOC we-ACC up
 ava //
 help-2SG.PRS.IMP
 ‘Come hither as a friendly one, O Tvaṣṭar. And mighty in
 (bringing about) prosperity by thyself, aid us in worship after
 worship.’¹³⁷ (RV V 5.9 after Klein 1985a: 385)

Other examples include (RV I 27.3, I 27.10, I 138.3, III 35.3, III 54.21, VIII 83.2, X 93.11). In these cases, the adverbs *viśvadānīm* ‘always’, *trír ā divás* ‘thrice a day’, *divé-dive* ‘day after day’ and *yajñé-yajñe* ‘worship after worship’ indicate that the Present Imperative forms *addhí* ‘eat!’, *píba* ‘drink!’, *suva* ‘extract!’ and *ava* ‘help!’ have a multiple event reading, and are therefore compatible with the presumption that the cardinality of the situation is more than one.

These considerations suggest that the Early Vedic Present Imperative has the same basic aspectual properties as the other categories belonging to the Present Paradigm discussed previously in this chapter. The semantic properties of the Early Vedic Present Imperative can be tentatively formalized as follows:

$$(120) \text{ [DIR}_{\text{MP}} \oslash [\text{TP} \oslash [\lambda t'. \lambda x. \lambda \text{TDL}. \exists e (\text{TDL}(x) \subseteq e \wedge t' \otimes t_E(e) \wedge |e| \geq 1)]]]$$

This formal representation differs in significant respects from the preceding ones, not least because of the lack of a truth-conditional element. It is intended to capture the intuition that the Present Imperative is restricted to directive clauses (DIR), that it involves adding a situation to the To-Do List (TDL) of a salient discourse referent (x) which then is included in the TDL, that it denotes the neutral aspect and that it is compatible with the implicature that the cardinality of the situation is one or more.

¹³⁷ Cf. Geldner (1951b: 8): ‘Komm wohlwollend hierher, o Tvaṣṭr, wirksam bei der Aufzucht hilf uns selbst bei jeden Opfer auf!’

Finally, we may now turn to a discussion of the semantics of the Early Vedic Present Injunctive. In general, the so-called Injunctive seems to have little, if any temporal or modal content (cf. Renou 1928, Hoffmann 1967: 265ff., Kiparsky 1968: 35ff., 2005: 220ff., Lazzeroni 1977: 9–17, Mumm 1995). Among other things this is reflected in the fact that it is compatible with a far broader range of modal and/or temporal contexts than any of the other tense and mood categories of the Early Vedic verb. Some of the readings of the Early Vedic Present Injunctive in assertive clauses are illustrated by the examples in (121):

- (121) a. *śíṣīte śakráḥ píśunebhyo vadhám*
 sharpen-3SG.PRS Śakra-NOM wicked-DAT weapon-ACC
nūnám srjad aśániṃ
 now throw-3SG.PRS.INJ mace-ACC
yātumádbhyaḥ //
 practising.witchcraft-DAT
 ‘Śakra sharpens his weapon against the wicked. Now he throws the mace at those who practise witchcraft’¹³⁸ (RV VII 104.20cd)
- b. *ayám akṛṇod uśásaḥ*
 this-NOM make-3SG.IPF dawns-ACC
supátnīr
 having.a.good.husband-ACC
ayám sūrye adadhāj jyótir antáh /
 this-NOM sun-LOC put-3SG.IPF light-ACC within
ayám tridhātu diví rocanéṣu
 this-NOM treefold heaven-LOC lights-LOC
tritēṣu vindad amṛtaṃ
 Tritas-LOC find-3SG.PRS.INJ ambrosia-ACC
nígūlham //
 hidden-ACC
 ‘He endowed the dawns’ with a good husband. He placed the light in the sun. He found the threefold hidden ambrosia among the lights in heaven, among the Tritas’¹³⁹ (RV VI 44.23)

¹³⁸ Cf. Geldner (1951b: 275): ‘Śakra schärft für die Verleumder die Waffe. Möge er jetzt den Stein gegen die Zauberer schleudern.’

¹³⁹ Cf. Geldner (1951b: 139): ‘Dieser gab den Uśas’ einen guten Gemal, dieser legte das Licht in die Sonne. Dieser fand im Himmel bei den Lichtern, bei den Trita’s den dreifach geborgenen Göttertrank.’

- c. *prá* ~ *asmai* *gāyatrām* *arcata*
 forth he-DAT hymn-ACC sing-2PL.PRS.IMP
vāvātur *yāḥ* *puraṁdarāḥ* /
 follower-GEN who-NOM destroyer.of.strongholds-NOM
yābhiḥ *kāṇvāsya* ~ *úpa* *barhír*
 which-INS son.of.Kaṇva-GEN toward sacrificial.grass-ACC
āsadam
 sit.down-INF
yāsad *vajrī* *bhinát*
 drive-3SG.AOR.SBJ mace.holder-NOM split-3SG.PRS.INJ
púrah //
 strongholds-ACC
 ‘Sing forth the hymn for him, who is the destroyer of
 strongholds for his follower, (hymns), because of which he,
 the mace-holder, will drive hither to sit down on the sacrificial
 grass, splitting strongholds (on his way)’¹⁴⁰ (RV VIII 1.8)

These examples illustrate that the Early Vedic Present Injunctive is compatible with present, past and future time reference. As illustrated by (121a), the Present Injunctive is compatible with adverbs like *nūnám* ‘now’ which specify a present reference time. In (121b), the Present Injunctive form *vindad* ‘finds, found’ apparently denotes a situation which is located prior to speech time, picking up a past reference time from the immediately preceding Imperfect forms *akṛṇot* ‘made’ and *adadhāt* ‘placed’. In (121c), the Present Injunctive form *bhinat* ‘splits, will split’ is coordinated with the (Aorist) Subjunctive form *yāsad* ‘will go’ and it is likely that both these forms express future probability here.

The Present Injunctive is also used in directive clauses, as illustrated by the following examples:

- (122) a. *akṣáir* *mā* *dīvyah* *kṛṣim* *ít*
 dices-INS don’t play-2SG.PRS.INJ land-ACC indeed
kṛṣasva
 plough-2SG.PRS.IMP

¹⁴⁰ Cf. Geldner (1951b: 278): ‘Stimmt ihm ein sangbares Lied an, der für seinen eifrigen Anhänger der Burgenbrecher ist, (Loblieder), durch die der Keulenträger komme, um sich auf das Barhis des Kaṇviden zu setzen und die Burgen breche.’

vitté ramasva bahú
 acquisition-LOC be.pleased-2SG.PRS.IMP much
 mányamānaḥ /
 think-PRS.PRT.NOM
 ‘Do not continue to play with dices! Plough the land instead!
 Be pleased with your property, thinking it’s plenty!’¹⁴¹ (RV X
 34.13ab)

- b. amā te túmraṃ vṛṣabhāṃ
 at.home you-DAT big-ACC bull-ACC
 pacāni
 cook-1SG.PRS.SBJ
 tīvrām sutām pañcadaśām ní ṣiñcam //
 strong-ACC juice-ACC fifteen-ACC in pour-1SG.PRS.INJ
 ‘I will cook a big bull for you, for fifteen (days) I will pour
 out strong (soma) juice’¹⁴² (RV X 27.2cd)
- c. bhāgo vā góbhīr aryamā ~ īm
 Bhaga-NOM or cows-INS Aryaman-NOM he-ACC
 anajyāt
 honour-3SG.PRF.OPT
 só asmai cāruś chadayad
 this-NOM he-DAT agreeable-NOM seem-3SG.PRS.INJ
 utá syāt //
 and be-3SG.PRS.OPT
 ‘Or let Bhaga (or) Aryaman anoint him with cows. That will
 seem dear to him, and might it (truly) (be so)!’¹⁴³ (Rigveda X
 31.4cd after Klein 1985b: 184, 1985a: 366)

The example in (122a) illustrates the well known use of the Present Injunctive (*dīvyas* ‘you play’) in prohibitive sentences where it is typically used to exhort the addressee to discontinue an act which is ongoing at speech time. Prohibitive sentences always contain the particle *mā* ‘don’t’ and almost exclusively select the Injunctive in Early

¹⁴¹ Cf. Geldner (1951c: 185): ‘Spiele nicht mehr mit den Würfeln, bestelle deinen Acker! Begnüge dich mit deinem Besitz, ihn hoch haltend!’

¹⁴² Cf. Geldner (1951c: 165): ‘(...) dann will ich dich daheim einen kräftigen Stier kochen und fünfzehn Tage lang scharfen Soma einschenken.’

¹⁴³ Cf. Geldner (1951c: 178): ‘Oder Bhaga und Aryaman sollen ihn mit Kühen auszeichnen: Er scheine ihm Angenehm und sei es auch.’

Vedic.¹⁴⁴ Example (122b) illustrates that the Present Injunctive (*siñcam* ‘I pour’) is occasionally used in promissive clauses, where the speaker commits himself to perform a situation of the type named by the verb (cf. also Kortlandt 1987: 220). This interpretation is suggested by the Present Subjunctive form *pacāni* ‘I will cook’ in the immediately preceding sentence. Finally, (122c) illustrates that the Present Injunctive (*chadayad* ‘seem’) may sometimes be coordinated with Optative forms (*anajyāt* ‘he may have anointed’, *syāt* ‘he may be’) in directive clauses. Note that Injunctive forms in general are only rarely coordinated with subjunctive and optative forms in Early Vedic. This might reflect a blocking process where these semantically specific modal operators tend to be preferred to the underspecified Injunctive in contexts where a probability or possibility reading is intended. In any case, the fact that the Early Vedic Present Injunctive is compatible with this broad range of interpretations may be taken as a strong *prima facie* indication that it is inherently underspecified with regard to tense and mood.

As regards the aspectual reference of the Present Injunctive, we may first note that its characteristic prohibitive or, more precisely, inhibitive use (cf. Hoffmann 1967: 74–92) illustrated by (122a) presupposes that it is compatible with a progressive-processual reading. More examples of inhibitive Present Injunctive forms are given below:

- (123) a. vy ùcchā duhitar divo
 forth shine-2SG.PRS.IMP daughter-VOC heaven-GEN
 mā́ ciraṃ tanuthā ápaḥ /
 don’t longer protract-2SG.PRS.INJ work-ACC
 ‘Shine forth, O daughter of heaven, do not longer protract
 (your) work’¹⁴⁵ (Rigveda V 79.9ab)
- b. áśvināv á ihá gacchatam
 Aśvins-VOC to here come-2DU.PRS.IMP
 násatyā mā́ ví venatam /
 Nāsatyas-VOC don’t apart look-2DU.PRS.INJ

¹⁴⁴ Hoffmann (1967: 92–98) discusses and largely dismisses the potential counter-examples.

¹⁴⁵ Cf. Geldner (1951b: 84): ‘Leuchte auf, Tochter des Himmels, zieh dein Werk nich in die Länge.’

‘O Áśvins, come hither! O Nāsatyas, don’t hesitate (any longer)!’¹⁴⁶ (RV V 75.7ab)

- c. á ~ u ṣú prá yāhi vājebhir
 to indeed forth drive-2SG.PRS.IMP booty-INS
 mǎ hr̥ñīthā abhy àsmān /
 don’t be.angry-2SG.PRS.INJ against we-ACC
 mahāñ iva yúvajāniḥ //
 great-NOM like whose.wife.is.young-NOM
 ‘Indeed, drive forth hither with (your) booty! Don’t continue
 holding a grudge against us, like a powerful man whose wife
 is young!’¹⁴⁷ (RV VIII 2.19)

Further examples are discussed in Hoffmann (1967: 77–88). In the examples given above, the Present Injunctive forms *tanuthās* ‘you protract’, *venatam* ‘you two look’ and *hr̥ñīthās* ‘you are angry’ all appear to be used to exhort the addressee to stop doing something which has been ongoing for a while at speech time. This use of the Present Injunctive implies that it is compatible with a progressive-processual reading ($t' \subset t_E$). Hoffmann (1967: 273) also provides examples of Present Injunctive forms in non-prohibitive sentences with a temporally overlapping reading. The fact that the Early Vedic Present Injunctive in most cases has an inhibitive meaning in prohibitive sentences and a temporally overlapping reading in coordinated assertive clauses led Hoffmann to the conclusion that the Present Injunctive denotes the imperfective and perhaps even the progressive aspect (cf. Hoffmann 1967: 105–106, 273). If his assumption is correct, this modal category would seem to have a fundamentally different aspectual reference than the other tense and mood categories belonging to the Present Paradigm discussed previously in this chapter. One consequence of this would be that these various forms do not show intra-paradigmatic coherence.

¹⁴⁶ Cf. Geldner (1951b: 81): ‘Áśvin! Kommt hierher! Nāsatya’s, wendet euren Blick nicht ab!’ The present translation follows Hoffmann (1967: 86): ‘Áśvins, kommet hierher, Nāsatya’s zögert nicht (länger)!’

¹⁴⁷ Cf. Geldner (1951b: 283): ‘Komm fein her mit deinen Belohnungen; sei auf uns nicht ärgerlich, wie ein alter Mann, der eine junge Frau hat!’ Here, I follow Hoffmann’s translation of the first two pādas (1967: 87): ‘Zieh doch herbei mit deinen Kampfpreisen, laß ab von deinem Groll gegen uns!’ and Klein’s translation of the first pāda (1978a: 173): ‘Indeed, drive forth hither with thy booties.’

There is some evidence, however, that this conclusion might be ill-founded. Above all, Hoffmann himself noted that Present Injunctive forms in some cases are used with a ‘preventive’ meaning, i.e. to exhort the addressee to refrain from performing a future action (cf. Hoffmann 1967: 88–89). Consider the following examples:

- (124) a. *úc chvañcasva pr̥thivi má ní*
 up be.open-2SG.PRS.IMP earth-VOC don’t down
bādhathāḥ
 press-2SG.PRS.INJ
sūpāyanā ~ asmai bhava
 easily.accessible-NOM he-DAT become-2SG.PRS.IMP
sūpavañcanā /
 friendly-NOM
 ‘Be open, O Earth, do not press (him) down, be easily accessible for him, be friendly’¹⁴⁸ (Rigveda X 18.11ab)
- b. *mā no agné ’va sṛjo*
 don’t we-ACC Agni-VOC down emit-2SG.PRS.INJ
aghāya
 mishap-DAT
aviśyāve ripāve ducchúnāyai /
 desirous-DAT enemy-DAT misfortune-DAT
 ‘O Agni, don’t surrender us to mishap, to a desirous enemy, to misfortune!’¹⁴⁹ (RV I 189.5ab)
- c. *mā jásvane vṛṣabha no*
 don’t hunger-DAT bullish-VOC we-ACC
rārithā
 give-2SG.PRS.INJ
mā te revātaḥ sakhyé
 don’t you-GEN prosperous-GEN friendship-LOC
riṣāma /
 become.hurt-1PL.PRS.INJ

¹⁴⁸ Cf. Geldner (1951c: 154): ‘Wölbe dich auf, o Erde, bedrücke (ihn) nicht, gib ihm guten Zugang und gutem Unterschluß.’

¹⁴⁹ Cf. Geldner (1951a: 270): ‘Überlaß uns nicht dem Bösen, dem gierigen Feind, dem Unheil!’

‘O bullish one, don’t surrender us to famine! Don’t let us become hurt in your, the prosperous one’s friendship!’¹⁵⁰ (RV VI 44.11ab)

Further examples are discussed in Hoffmann (1967: 88–89). In these examples, the most likely interpretation of the Injunctive forms *bādhathās* ‘you suppress’, *rarīthās* ‘you give’ and *srjas* ‘you emit’ is that they denote a situation which is located after the time of the utterance. The first example belongs to a funeral hymn, which was recited when the bones of the deceased were buried.¹⁵¹ With this in mind it is unlikely that the speaker would use the Present Injunctive form *bādhathās* ‘press’ to inhibit a situation which is going on as he speaks. This form rather seems to have a preventive meaning here, a type of prohibition which is typically conveyed by the Aorist Injunctive, as will be discussed in Chapter Four. The fact that the Present Injunctive is compatible with a preventive reading in prohibitive sentences would at the very least presuppose that it may be used to express that reference time is coextensive with event time ($t' = t_E$). One way to bolster Hoffmann’s hypothesis would be to assume that the Present Injunctive does not obligatorily denote the progressive aspect ($t' \subset t_E$), but still has a basically imperfective meaning ($t' \subseteq t_E$). Under this assumption, the Present Injunctive would be compatible with both a progressive-processual and a coextensive reading.

However, a closer look at the data reveals that this cannot be the whole story. For, we find that Present Injunctive forms occasionally appear to be used to denote a situation which is represented as terminated prior to another situation in the same discourse context. Consider the following examples:

- (125) a. *rātryām* *tāmo* *ādadhur* *jyótir*
 night-LOC darkness-ACC put-3PL.IPF light-ACC
 $\acute{a}han$
 day-LOC
 bṛhaspátir *bhinád* $\acute{a}driṃ$
 Bṛhaspati-NOM split-3SG.PRS.INJ rock-ACC

¹⁵⁰ Cf. Geldner (1951b: 138): ‘Liefere uns nicht einem Hungerleider aus, o Bulle, nicht sollen wir in deiner, des Reichen Freundschaft Schaden erleiden.’

¹⁵¹ Cf. Geldner (1951c: 152).

vidád gāḥ //
 find-3SG.AOR.INJ cows-ACC
 ‘They placed the darkness in the night, the light in the day.
 Br̥haspati split the rock (and) found the cows’¹⁵² (Rigveda X
 68.11cd)

- b. asmā íd u tvāṣṭā takṣad
 he-DAT indeed PTC Tvaṣṭar-NOM shape-3SG.PRS.INJ
 vājraṃ
 mace-ACC
 svāpastamaṃ svaryāṃ rāṇāya /
 well.made-ACC resounding-ACC battle-DAT
 vṛtrasya cid vidád yēna
 Vṛtra-GEN even find-3SG.AOR.INJ which-INS
 mārma
 mortal.spot-ACC
 ‘Tvaṣṭar made the mace for him, well made, resounding for
 battle, with which he even found Vṛtra’s mortal spot’¹⁵³ (RV
 I 61.6a–c)

- c. asyá ~ íd evá śávasā
 it-GEN indeed so strength-INS
 śuśántaṃ
 become.dry-AOR.PTC.ACC
 ví vṛṣcad vājreṇa vṛtrám índraḥ /
 apart cut-3SG.PRS.INJ mace-INS Vṛtra-ACC Indra-NOM
 gā ná vrāṇā avánīr amuñcad
 cows-ACC like pent-ACC streams-ACC release-3SG.IPF
 ‘By its strength Indra thus crushed Vṛtra who had become
 dry with the mace. He released the streams that had been
 penned like cows’¹⁵⁴ (RV I 61.10a–c)

¹⁵² Cf. Geldner (1951c: 245): ‘Die Finsternis verlegten sie auf die Nacht, auf dem Tag das Licht. Br̥haspati spaltete den Fels, er hat die Kühe gefunden.’

¹⁵³ Cf. Geldner (1951a: 78): ‘Ihm zimmerte Tvaṣṭr die Keule, die sehr kunstreiche, sausende zum Kampfe, mit der er sogar des Vṛtra verwundbare Stelle fand.’

¹⁵⁴ Cf. Geldner (1951a: 79): ‘Durch seine Kraft allein zerhieb Indra mit der Keule den wütenden(?) Vṛtra. Die Flüsse, die wie Kühe eingesperrt waren, befreite er, auf Ruhm (ausgehend), zu schenken einverstanden.’

Other possible examples include (RV I 62.4, I 63.2, II 15.8, II 19.2). In these cases, the Present Injunctive forms *bhinát* ‘split’, *taṣṣat* ‘shaped’ and *vṛścat* ‘cut’ may be taken to denote a situation which is terminated prior to the situation denoted by the following verb forms *vidát* ‘he found’ and *amuñcat* ‘he released’, respectively. If my interpretation of these data is correct, the Present Injunctive is compatible with a completive-sequential reading ($t_E \sqsubset t'$). Given the other readings associated with the Present Injunctive, it may therefore be taken to denote the neutral aspect ($t' \otimes t_E$).

Before concluding the discussion of the semantics of the Early Vedic Present Injunctive, we should note that it is also compatible with an iterative-habitual reading. Consider the following examples:

- (126) a. *trīḥ sma mā ~ áhnaḥ śnathayo*
 thrice always me-ACC day-GEN pierce-2SG.PRS.INJ
vaitaséna ~
 penis-INS
utá sma mé 'vyatyai prṇāsi /
 and always I-DAT not.willing-DAT fill-2SG.PRS.
 ‘Thrice a day you pierced me with your penis and filled me
 even when I was reluctant’¹⁵⁵ (RV X 95.5ab)
- b. *agnīm-agnim hāvīmabhiḥ*
 agni.and.agni-ACC invocations-INS
sādā havanta viśpátim /
 always call-3.PL.PRS.INJ chief.of.the.clan-ACC
havyavāham purupriyám //
 oblation.bearer-ACC dear.to.many-ACC
 ‘They always call Agni again and again with invocations, the
 chief of the clan, who carries the oblation, who is dear to
 many’¹⁵⁶ (RV I 12.2)
- c. *tám íd doṣā tám uśási*
 he-ACC indeed at.night he-ACC morning-LOC
yáviṣṭham
 youngest-ACC

¹⁵⁵ Cf. Geldner (1951c: 300): ‘Dreimal des Tages stachst du mich mit der Rute, und du ließest mir, wenn ich kein Gelüste hatte, reichlich zukommen.’

¹⁵⁶ Cf. Geldner (1951a: 12): ‘Agni und Agni rufen sie stets mit Anrufungen, den Clanherrn, den vielliebten Opferführer.’ My translation follows Hoffmann (1967: 128): ‘Immer wieder den Agni rufen sie stets mit ihren Anrufungen, den Stammherrs.’

agním átyam ná *marjayanta*
 Agni-ACC steed-ACC like adorn-3SG.PRS.INJ
 nárah /
 men-NOM

‘Him indeed the men adorn at night, him in the morning the youngest Agni like a steed’¹⁵⁷ (RV VII 3.5ab)

These three examples represent the only instances we have found of Present Injunctive forms modified by iterative or habitual adverbs. Hoffmann (1967: 273) provides some further examples of Present Injunctive forms which may be assigned an iterative-habitual reading, even though they are not modified by any explicit operator inducing this reading. Although this evidence is not of the strongest possible kind, it indicates that the Present Injunctive is marginally compatible with the presupposition that the cardinality of the situation is more than one. We leave it open as to whether the relatively scanty attestation of Present Injunctive forms in this type of context is due to an accidental gap in the corpus or reflects that the Injunctive mood is on the verge of becoming obsolete in non-prohibitive sentences.¹⁵⁸ Nevertheless, we think it is warranted to conclude that the Present Injunctive has the same basic aspectual semantics as the other categories belonging to the Present Paradigm, as formalized in (127):

$$(127) [\lambda P.\lambda t'.\exists e(t' \otimes t_e(e) \wedge |e| \geq 1 \wedge P(e) = T)]$$

The data discussed in this section indicate that the non-indicative modal categories of the Present stem have the same basic aspectual properties as the Present Indicative and the Imperfect.

¹⁵⁷ Cf. Geldner (1951b: 182): ‘Ihn putzen die Männer abends, ihn am Morgen, den jüngsten Agni wie ein Rennpferd.’

¹⁵⁸ Hoffmann (1967: 110, cf. also Avery 1885: 361) notes that there are only 64 independently attested cases of Injunctive forms in non-prohibitive sentences in Atharvaveda, as opposed to about 1600 in the Rigveda. These figures clearly indicate that the Injunctive was about to become restricted to prohibitive clauses in the Early Vedic period, a process which is fully accomplished in the stages of Vedic following the Early Middle Vedic period attested by the language of the Atharvaveda.

3.4 *The Present Participle*

The Present Participle is a deverbal adjective belonging to the Present Paradigm. The Present Participle is inherently underspecified with regard to tense and mood. The radically underspecified character of the Present Participle is reflected in the fact that it can be used in any type of temporal or modal context and apparently inherits the temporal and modal properties of the sentence in which it is used. The following examples illustrate that the Present Participle is compatible with present, past and future time reference:

- (128) a. *índrasya dūṭī iṣitā*
 Indra-GEN female.messenger-NOM discharged-NOM
carāmi
 move-1SG.PRS
mahá icchántī paṇayo
 great-ACC seek-PRS.PRT.NOM Paṇis-VOC
nidhín vaḥ /
 treasures-ACC you-GEN
 ‘Sent off as Indra’s messenger I come, seeking for your
 treasures, O Paṇis’¹⁵⁹ (RV X 108.2ab)
- b. *prá vo mahé máhi námo*
 Forth you-GEN great-DAT great-ACC homage-ACC
bharadhvam
 bring-2PL.PRS.IMP
āṅgūṣyaṁ śavasānāya sāma /
 containing.praise-ACC strong-DAT hymn-ACC
yénā naḥ pūrve pitáraḥ
 which-INS we-GEN old-NOM fathers-NOM
padajñā
 tracing.experts-NOM
árcanto áṅgirasó gā
 sing-PRS.PRT.NOM Aṅgiras-NOM cows-ACC
ávindan //
 find-3PL.IPF

¹⁵⁹ Cf. Geldner (1951c: 229): ‘Als Indra’s Botin komme ich abgesant, eure großen Schätze suchend, ihr Paṇis.’

‘Bring your great homage to the great one, (bring) the hymn containing praise to the strong one, with which our old fathers, the Aṅgiras, experts in tracing, found the cows while singing’¹⁶⁰ (RV I 62.2)

- c. imám yajñám tvám asmákam
 this-ACC sacrifice-ACC you-NOM we-GEN
 indra
 Indra-VOC
 puró *dádhat* sanīṣyasi krátuṃ
 in.front place-PRS.PRT.NOM gain-2SG.FUT plan-ACC
 naḥ /
 we-DAT
 ‘O Indra, by esteeming this sacrifice of ours you will fulfil our intent’¹⁶¹ (RV IV 20.3ab)

In these cases, the Present Participle forms *icchántī* ‘seeking’, *ārcantas* ‘singing’ and *dádhat* ‘placing’ denote a situation which is temporally overlapping with the situation denoted by the following Present Indicative form *carāmi* ‘I am moving’, the Imperfect form *āvindan* ‘found’ and the Future Indicative form *sanīṣyasi* ‘you will gain’ respectively. The examples in (128) illustrate that the Present Participle is compatible with present, past and future time reference and hence may be assumed to be underspecified with regard to tense. Moreover, they illustrate that Present Participle forms of atelic as well as telic predicates are compatible with a progressive-processual reading ($t' \subset t_E$). This is by far the most salient aspectual reading of the Present Participle.

Further, the Present Participle is compatible with a broad variety of modal meanings. Consider the following examples:

- (129) a. prá vām dáṃsāṃsy áśvināv
 forth you.two-GEN marvelous.deeds-ACC Áśvins-ACC
 avocam
 speak-1SG.AOR

¹⁶⁰ Cf. Geldner (1951a: 80): ‘Bringet dem Großen eure große Huldigung dar, die liedgemäße Sangesweise dem Mächtigen, mit dem unsere Vorväter, die spurenkundigen Aṅgiras’, unter Lobsang die Rinder auffanden.’

¹⁶¹ Cf. Geldner (1951a: 445): ‘Wenn du diesen Opfer von uns den Vorzug gibst, wirst du unsere Absicht erreichen.’

asyá pátiḥ syāṁ sugávaḥ
 it-GEN lord-NOM be-1SG.PRS.OPT with.good.cattle-NOM
 suv́iraḥ /
 with.good.sons-NOM
 utá páśyann aśnuván dīrghám
 and see-PRS.PRT.NOM reach-PRS.PRT.NOM long-ACC
 áyur
 life-ACC
 ástam iva ~ íj jarimāṇaṁ jagamyām //
 home-ACC like indeed old.age-ACC come-1SG.PRF.OPT
 ‘I have proclaimed your marvelous deeds, O Áśvins. May I
 be master of this (wealth), in possession of good cows and a
 good slave-contingent. And beholding (and) attaining a long
 lifetime, may I have come onto old age like a house’¹⁶² (RV I
 116.25)

- b. asmé śréṣṭhebhīr bhānúbhīr ví
 we-DAT most.splendid-INS rays.of.light-INS apart
 bhāhy
 shine-2SG.PRS.IMP
 úṣo devi prátirántī
 Uṣas-VOC goddess-VOC prolong-PRS.PRT.NOM
 na áyuh /
 we-GEN life-ACC
 ‘Shine widely for us with your most splendid rays, O goddess
 Uṣas, prolonging our life!’¹⁶³ (RV VII 77.5ab)
- c. yá índrāya sunávat sómam adyá
 who-NOM Indra-DAT extract-3SG.PRS.SBJ today
 pácāt paktír utá bhr̥jjāti
 cook-3SG.PRS.SBJ foods-ACC and roast-3SG.PRS.SBJ
 dhānāḥ /
 grains-ACC

¹⁶² Cf. Geldner (1951a: 156): ‘Eure Meisterstücke habe ich verkündet, o Áśvin. Ich möchte Herr über dieses (Besitztum) sein, im Besitz schöner Rinder und Söhne und sehend und ein langes Leben erreichend ins Alter eingehend wie in das eigene Haus.’ Cf. Klein (1985a: 376): ‘I have proclaimed your wondrous deeds, O Áśvins. Might I be master of this (wealth), in possession of good cows and a good slave-contingent. And beholding (and) attaining a long lifetime, might I come onto old age like (I do onto my own) house.’

¹⁶³ Cf. Geldner (1951b: 250): ‘Erstrahle uns mit den schönsten Strahlen, Göttin Uṣas, unser Leben verlängernd.’

prāti manāyór ucáthāni háryan
 back devoted-GEN praises-ACC enjoy-PRS.PRT.NOM
 tásmin dadhad vṛṣaṇam śuṣmam
 he-LOC place-3SG.PRS.SBJ bullish-ACC strength-ACC
 índraḥ //
 Indra-NOM

‘The one who will press soma for Indra today, will cook the cooked food, and will roast the cornmeal, upon him Indra will bestow bullish strength in return, (he will be) enjoying the praises of the devoted’¹⁶⁴ (RV IV 24.7)

These examples illustrate that the Present Participle may be co-ordinated with Optative, Imperative and Subjunctive forms and that they tend to have the same modal reference as the corresponding finite form. For example, the forms *páśyan* ‘seing’ and *aśnuvān* ‘attaining’ in (129a) appear to express a possible state of affairs, an interpretation which is suggested by the preceding Present Optative form *syām* ‘I may be’ and the following Perfect Optative form *jagamyām* ‘I may have come’. Similarly, the form *pratirāntī* ‘prolonging’ in (129b) seems to have a directive meaning, just like the preceding Present Imperative form *bhāhi* ‘shine!’. Finally, the Present Participle form *háryan* ‘enjoying’ may be taken to denote a single specific situation which is temporally overlapping with the following Present Subjunctive form *dadhat* ‘he will place’. These examples therefore suggest that the Present Participle is compatible with virtually any modal context and, moreover, is used to convey the progressive aspect ($t' \subset t_E$).

A critical reader might object that example (129c) is ambiguous, as the translation given above hinges on the assumption that the noun phrase *manāyós* ‘of the devoted’ picks out a specific referent here, something which may, but need not, be the case. If, on the other hand, it has non-specific reference, the Present Participle form *háryan* ‘enjoying’ would seem to have a habitual interpretation here, as it describes a general property of Indra. This possibility finds some support in the fact that the Present Participle is compatible with contexts explicitly

¹⁶⁴ Cf. Geldner (1951a: 451–452): ‘Wer heute dem Indra Soma pressen und Kochspeisen kochen und Körner rösten wird, dem wird Indra bullenhafte Kampfwut verleihen, indem er des Dichtenden Loblieder gern annimmt.’ Cf. also Klein (1985a: 434): ‘The one who will press soma today for Indra, will cook the cooked food, and will roast the cornmeal, ... upon that one will Indra set bull-power.’

requiring an iterative-habitual interpretation, as illustrated by the following examples:

- (130) a. *viśvāhā tvā sumānasah sucākṣasah*
 Always you-ACC comfortable-NOM seeing.well-NOM
prajāvanto anamivā
 rich.in.children-NOM without.disease-NOM
ánāgasah /
 without.blame-NOM
udyántam tvā mitramaho
 rise-PRS.PRT.ACC you-ACC rich.in.friends-VOC
divé-dive
 day.by.day-LOC
vyóg jīvāh prāti paśyema sūrya //
 long living-NOM again see-1PL.PRS.OPT Sun-VOC
 ‘May we, always being comfortable, seeing well, being rich in children, free from disease, free from blame, see you rising day by day, living long, O Sūrya who is rich in friends’¹⁶⁵ (RV X 37.7)
- b. *rómāny ávyā samāyā ví dhāvati*
 hair-ACC of.sheep-ACC through apart flow-3SG.PRS
mádhor dhārā pínvamānā
 mead-GEN stream-NOM abound-PRS.PRT.NOM
divé-dive //
 day.by.day-LOC
 ‘The stream of mead trickles through the sheep’s hair, abounding day by day’¹⁶⁶ (RV IX 75.4cd)

Other examples include (RV I 92.10, I 123.9, II 9.5, II 34.7, III 36.1, VIII 43.26). In these examples, the iterative adverb *divé-dive* ‘day by day’ suggests that the Present Participle forms *udyántam* ‘rising’ and *pínvamānā* ‘abounding’ denote continually recurring situations. This fact indicates that the Present Participle is compatible with a multiple

¹⁶⁵ Cf. Geldner (1951c: 189): ‘Möchten wir dich allezeit, Gutes denkend, Gutes schauend, kinderreich, ohne Krankheit, ohne Sünde, dich, wie ein Freund geehrter, Tag für Tag, noch lange lebend wieder aufgehen sehen, o Sūrya.’

¹⁶⁶ Cf. Geldner (1951c: 70): ‘Mitten durch die Schafhaare rinnt der Strom der Süßigkeit, Tag für Tag anschwellend.’

event reading, just like the other categories belonging to the Present Paradigm.

The readings of the Present Participle discussed so far are representative of its use in an overwhelming majority of cases and might be taken to suggest that it has a basic imperfective meaning, as seems to be tacitly assumed in the research literature. Even in the present context, this assumption does not seem implausible; verbal adjectives might be expected to have a somewhat more specialized set of functions than paradigmatically closely related finite forms, not least because the canonical function of adjectives may be taken to consist in ascribing properties to individuals. It would therefore not be surprising if the Present Participle had imperfective semantics, as the imperfective aspect within the present framework may be regarded as a semantically specific variant of the neutral aspect. This would, however, seem to indicate that the categories belonging to the Present Paradigm are not semantically coherent.

Significantly, a case could be made for the claim that the Present Participle is also marginally compatible with a completive-sequential reading. Consider the following examples:

- (131) a. bráhmaṇā te brahmayújā
 prayer-INS you-DAT harnessed.by.prayer-ACC
 yunajmi
 yoke-1SG.PRS
 hārī sákhāyā sadhamāda āśú /
 bay-ACC two.friends-ACC feast-LOC quick-ACC
 sthiráṁ rátham sukhám indra ~
 firm-ACC wagon-ACC swift-ACC Indra-VOC
 adhitiṣṭhan
 mount-PRS.PRT.NOM
 prajānán vidvām úpa
 know-PRS.PRT.NOM know-PRF.PRT.NOM to
 yāhi sómam //
 drive-2SG.PRS.IMP soma-ACC
 ‘With a sacred word I yoke the two bay (horses) for you,
 which are harnessed by prayer (only). O Indra, having
 mounted the steady, swift chariot, drive towards the soma,
 you who are wise, who know!’¹⁶⁷ (RV III 35.4)

¹⁶⁷ Cf. Geldner (1951a: 376): ‘Mit kräftigem Zuspruch schirre ich dir die beiden durch (bloßen) Zuspruch geschirrten Falben, deine Kameraden bei dem Somagelage,

- b. m_áryo ná śubhrás tanvaṃ
 Man-NOM like beautiful-NOM body-ACC
 mṛjānó
 rub-PRS.PRT.NOM
 'tyo ná śṛtvā sanāye dhānānām /
 horse-ACC like swift-NOM win-INF prizes-GEN
 vṛṣā iva yūthā pári kóśam
 bull-NOM like herds-ACC towards vessel-ACC
 āṛṣan
 flow-PRS.PRT.NOM
 kánikradac camvòr á
 roar-INT.PRS.PRT.NOM camū.receptacles-LOC into
 viveśa //
 enter-3SG.PRF
 'Like a beautiful man rubbing his body, swift as a horse
 (running) to win the prizes, flowing towards the vessel like a
 bull around the herds, roaring loudly he has entered into the
 two camū-receptacles'¹⁶⁸ (RV IX 96.20)
- c. ghnánto vṛtrāṇy ubháyaṇi
 smite-PRS.PRT.NOM enemies-ACC of.both.kinds-ACC
 śūra
 hero-VOC
 rāyā madema bṛhatā
 riches-INS rejoice-1PL.PRS.OPT great-INS
 tvótāḥ //
 helped.by.you-NOM
 'O hero, smiting enemies of both kinds may we enjoy great
 riches helped by you'¹⁶⁹ (RV VI 19.13cd)

Other possible examples include (RV I 36.8, II 28.7, V 15.11, V 28.2, VI 16.11, IX 64.8). In these examples, the Present Participle forms *adhitiṣṭhan* 'mounting', *āṛṣan* 'flowing' and *ghnántas* 'smiting' denote a situation which temporally and causally precedes the situation

die Renner. Besteige den festen, leichten Wagen, o Indra und komm des Weges kundig als kenner zum Soma!

¹⁶⁸ Cf., however, Geldner (1951c: 94): 'Wie ein schöner Jüngling seinen Körper putzend, wie ein Rennpferd laufend, um die Preise zu gewinnen, die Kufe umkreisend wie ein Bulle die Herde, ist er brüllend in die beiden Camūgefäße gezogen.'

¹⁶⁹ Cf. Geldner (1951b: 116): 'Beiderlei Feinde schlagend, o Held, wollen wir von dir begünstigt in großem Reichtum schwelgen.'

denoted by the following Present Imperative form *yāhi* ‘drive!’, the Perfect Indicative form *viveśa* ‘has entered’ and the Present Optative form *madema* ‘we may rejoice’ respectively. If my interpretation of the above passages is correct, these examples would seem to indicate that the Present Participle is used with a completive-sequential meaning in a few cases. Thus it is compatible with the aspectual relation ‘event time properly included in reference time’ ($t_E \subset t'$) something which, given the evidence discussed above, in turn presupposes that it denotes the neutral aspect ($t' \otimes t_E$). Being underspecified for tense and mood, it has a semantic specification very similar to, if not identical with, that of the Present Injunctive. This is captured by the following formal representation (cf. also (127) above).

$$(132) [\lambda P. \lambda t'. \exists e (t' \otimes t_E(e) \wedge |e| \geq 1 \wedge P(e) = T)]$$

This is not to say, however, that the Present Injunctive and the Present Participle have exactly the same range of readings, but as a detailed discussion of their exact semantic properties would be far beyond the scope of this work, a more nuanced analysis of the relationship between these two categories must be postponed to a future occasion.

3.5 *The Aspectual Reference of the Present Stem*

In sections 3.1 through 3.4, I examined the various readings associated with the Present Indicative, the Imperfect, the non-indicative modal categories of the Present and the Present Participle. The data discussed in these sections indicate that the various inflectional categories belonging to the Present Stem have three aspectual readings in common: a progressive-processual reading, an iterative-habitual reading and a completive-sequential reading. Within the framework developed in Chapter One, the fact that the Present Paradigm is compatible with exactly this set of readings may be straightforwardly accounted for by assuming that it denotes the neutral aspect. Further, each of these readings represents a contextually determined variant of the basic aspectual relation denoted by the neutral aspect, as schematically represented in Figure 3.2 below:

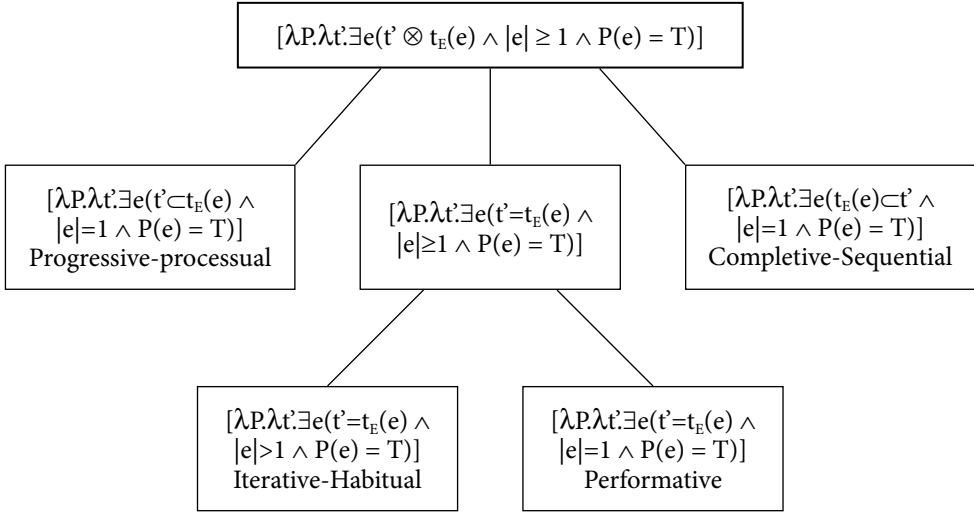


Figure 3.2: The readings associated with the Early Vedic Present Paradigm

CHAPTER FOUR

THE AORIST SYSTEM

This chapter examines the semantic properties of the inflectional categories belonging to the Aorist Paradigm. Its main aim is to establish whether there are any systematic semantic correspondences or differences between these categories, particularly whether they are paradigmatically coherent or not, and especially highlighting their temporal and aspectual properties. Moreover, it attempts to determine whether there are any systematic semantic differences or similarities between the Aorist and Present Paradigms in this respect, that is, what, if any, intra-paradigmatic contrasts in the aspecto-temporal domain determine the distribution patterns of the various categories belonging to each of these paradigms. Section 4.1 discusses the most important discourse functions of the Aorist Indicative and Section 4.2 those of the modal categories belonging to the Aorist Paradigm. Section 4.3 examines the readings of the Aorist Participle. The main findings of this chapter are summarized in Section 4.4 below.

Before turning to a more detailed discussion of the semantic properties of the categories belonging to the Aorist Stem, two general remarks are in order. First, recall from Chapter Two that Aorist forms of state and activity verbs in general are relatively infrequent in Early Vedic. In contrast, Present forms of both these types of verbs often occur in the corpus. Significantly, Denominative verbs which typically have a stative character generally do not have an Aorist Stem in Early Vedic. This is also the case with derived Desiderative verbs which have a basic progressive-processual meaning (cf. Heenen 2006: 36–72) and with so-called Intensive verbs which have a basic iterative meaning (cf. Schaefer 1994: 72–99). These distribution patterns cannot be due to an accidental gap in the corpus. It is tempting to conclude that the Aorist generally does not combine well with verbs underspecified with respect to the change of state feature and that it is semantically incompatible with specific imperfective categories. These two slightly different sets of constraints represent a strong *prima facie* indication that the aspectual properties of the Aorist Stem differ from those of the Present Stem.

Another related issue concerns the relative frequency of non-indicative and participle forms of the Aorist Paradigm and corresponding forms of the Present Paradigm. An informal count based on Macdonell (1910) reveals that the relative type frequency of Subjunctive, Optative, 2nd singular Imperative and Participle forms belonging to the Present and Aorist Stems is about three to one (1130/380).¹ Moreover, the table in Baum (2006: 67–68) shows that the relative token frequency of Present and Aorist Imperative forms are about four to one (4354/1140). These distributional patterns may either be taken to suggest that the various non-indicative modal categories and Participle of the Aorist Paradigm are on the verge of disappearing in the Early Vedic period or that they represent semantically more specific, that is ‘marked’ alternatives to the corresponding morphological categories of the Present Paradigm.

4.1 *The Aorist Indicative*

This section examines the semantic properties of the Aorist Indicative. Like the Imperfect, the Aorist Indicative is inherently specified for past tense ($t' < t_0$). Unlike the Imperfect, however, the Aorist Indicative is found in contexts explicitly specifying or implicitly presupposing an immediate past reference time, as illustrated by the following examples:

- (133) a. *īyúṣ* *té* *yé* *púrvatarām*
 go-3PL.PRF those-NOM who-NOM earlier-ACC
 ápaśyan
 see-3PL.IPF
 viuchántīm *uṣásam* *mártiyāsaḥ* /
 shining.forth-ACC dawn-ACC mortals-NOM
 asmábhīr *ū* *nú* *praticákṣiyā* ~ *abhūd*
 we-INS and now visible-NOM become-3SG.AOR

¹ Note that the relative frequency of each of these categories yields a somewhat different picture: Present vs. Aorist Subjunctive 315/175 (isolated sa-Subjunctives not included), Present vs. Aorist Optative 124/87 (Precatives not included), Present vs. Aorist 2nd singular Imperative 281/27 and Present vs. Aorist Participle 415/75.

á u té yanti yé
 hither and those-NOM go-3.PL.PRS who-NOM
 aparīṣu páśyān //
 future-LOC see-3PL.PRS.SBJ

‘Gone are those mortals who have looked upon the previous shining dawn. And now she has come into existence to be seen in turn by us. Hither come those who shall look upon (her) in later times’² (RV I 113.11 after Klein 1978: 134)

- b. idám u tyát purutámaṃ
 this-NOM and this-NOM ever.recurring-NOM
 purástāḥ
 in.the.east
 jyótis támaso vayúnāvad *asthāt* /
 light-NOM darkness-ABL bright-NOM rise-3SG.AOR
 nūnām divó duhitáro vibhāṭir
 now heaven-GEN daughters-NOM shining.widely-NOM
 gātúm kṛṇavann uśáso jánāya //
 way-ACC make-3PL.PRS.SBJ Uśases-NOM man-DAT
 ‘This ever recurring light has arisen in the East from the darkness. Now the shining daughters of heaven, the Dawns will make a way for man’³ (RV IV 51.1)

- c. nú ṣṭutá indra nú
 now praised-NOM.SG Indra-VOC.SG now
 grṇāná
 celebrated-NOM.SG
 íṣaṃ jaritré nadyò ná
 libation-ACC singer-DAT rivers-NOM like
 pīpeḥ /
 make.swell-2SG.AOR.INJ

² Cf. Geldner’s translation: ‘Vergangen sind die Sterblichen, welche die früheren Usas’ aufgehen sahen, jetzt hat sie sich von uns beschauen lassen; es kommen die, welche sie in Zukunft sehen werden.’

³ Cf. Geldner (1951a: 437): ‘Dort vorne [im Osten] ist dies Licht zum vielten Male der Finsternis entstiegen, die Zeiten machend. Non sollen des Himmels Töchter, die Uśas’, durch ihr Erstrahlen dem Menschen den Weg bereiten.’ Cf. also Klein (1978: 107): ‘This light, the last of many has arisen from the East, possessing a covering for the darkness.’

constitutes the absolute right boundary for past reference times, the adverbs in these examples may be taken to emphasize the point where the past reference time introduced by the past tense of the verb ends and the present reference time introduced by the adverb begins. This amounts to saying that the reference time interval ends immediately before speech time, i.e. it expresses the temporal relation ‘reference time immediately prior to evaluation time’ ($t' > t_0$). Recall that this temporal relation was defined as immediate past in Chapter One. Observe that there are extremely few cases in Early Vedic where Aorist Indicative forms are unambiguously in the scope of the adverb *nú* ‘now’ and no examples where such forms are in the scope of the adverb *nūnám* ‘now’. The temporal relation expressed by the Aorist Indicative form *abhūt* ‘has come into being’ and the adverb *nú* ‘now’ in the first passage is schematically represented in Figure 4.1 below. We are primarily interested in the temporal reference of the Aorist Indicative here and do not yet wish to address the question of its aspectual properties. We therefore represent the aspectual relation expressed by the Aorist Indicative form as ‘reference time coextensive with event time’ which may reflect the imperfective aspect, the perfective aspect or the neutral aspect. A discussion of the aspectual properties of the Early Vedic Aorist Indicative is found below. For ease of exposition the symbol ‘ t^* ’ is used to distinguish the reference time introduced by the frame adverb *nú* ‘now, just now’ from that denoted by the past tense of the verb.

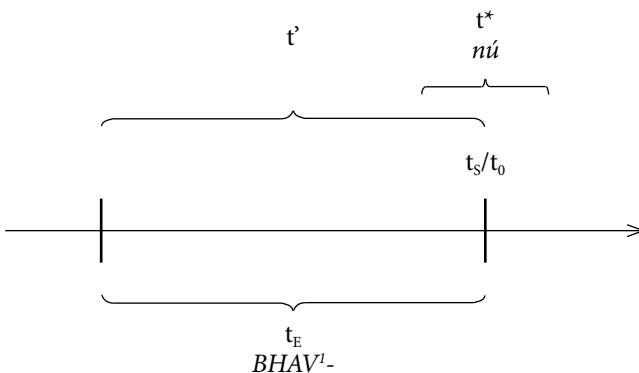


Figure 4.1: A time-relational analysis of RV I 113.11

As the Aorist Indicative is compatible with an explicit immediate past reference time, it is hardly surprising that it is also found in contexts explicitly specifying a hodiernal past reference time. Consider, for instance, the following examples:

- (134) a. *yád* *adyá kác* *ca* *vṛtrahann*
 that-ACC today what-ACC and slayer.of.Vṛtra-VOC
udāgā *abhí sūrya /*
 rise-2SG.AOR over Sūrya-VOC
sārvam *tád* *indra* *te* *váśe //*
 all-NOM that-NOM Indra-VOC you-GEN power-LOC
 ‘Whatever you have risen over today, O slayer of Vṛtra, O
 Sūrya, all that is in your power, Indra’⁵ (RV VIII 93.4)

- b. *sādhvīm* *akar* *devāvītiṃ*
 excellent-ACC make-3SG.AOR feast.of.the.gods-ACC
 no *adyá*
 we-GEN today
yajñāsya *jihvām* *avidāma* *gúhyām /*
 sacrifice-GEN tongue-ACC find-1PL.AOR secret-ACC
sá *āyur* *āgāt* *surabhír*
 he-NOM life-ACC come-3SG.AOR sweet.smells-INS
vāsāno
 dressed-NOM
bhadrām *akar* *deváhūtiṃ*
 prosperous-ACC make-3SG.AOR invocation.of.the.gods-ACC
 no *adyá //*
 we-GEN today
 ‘He has made our feast of the gods excellent today. We have
 found the secret tongue of the sacrifice. He has come to life
 dressed in sweet smells. He has made our invocation of the
 gods prosperous today’⁶ (RV X 53.3)

⁵ Cf. Geldner (1951b: 417): ‘Worüber auch immer du heute aufgegangen bist, du Vṛtratöter, du Sūrya, das alles ist in deiner Gewalt, Indra.’

⁶ Cf. Geldner (1951c: 215): ‘Er hat unsere Götterladung heute erfolgreich gemacht; wir haben des Opfers geheime Zunge gefunden. Duftend ist er gekommen, sich in Lebenskraft kleidend; er hat heute unsere Götteranrufung gesegnet gemacht.’

- c. *saṃvatsarā idām adyā vy ākhyata //*
 year-LOC now today apart appear-2.PL.AOR
 ‘After a year you have now appeared today’⁷ (RV I 161.13d)

Other examples include (RV I 23.23 (= X 9.9), I 113.13, VIII 22.1, VIII 47.18 (= X 164.5), X 18.3, X 32.8). In these and similar examples, the frame adverb *adyā* ‘today’ specifies a reference time interval which has fairly precise boundaries, namely the boundary between the present day and the previous day and the boundary between the present day and the following day. The inherent past time reference of the Aorist Indicative forms *udāgās* ‘you have risen’, *akar* ‘he has made’, *avidāma* ‘we have found’, *āgāt* ‘has come’ and *vī akhyata* ‘you have appeared’ further restricts the reference time so that speech time constitutes its absolute right boundary.

Moreover, the Aorist Indicative is occasionally found in contexts explicitly specifying or implicitly presupposing a prehodiernal past reference time. The following passages illustrate this:

- (135) a. *tvām idā hyó náró*
 you-ACC at.this.time yesterday men-NOM
’pīpyan vajrin bhūrṇayaḥ /
 make.swell-3PL.AOR mace.holder-VOC active-NOM
 ‘The active men made you swell at this time yesterday, O mace-holder’⁸ (RV VIII 99.1ab)
- b. *yé cid dhí pūrva*
 who-NOM even for earlier-NOM
ṛtasāpa āsan
 performing.pious.work-NOM be-3PL.IPF
sākāṃ devébhir āvadann ṛtāni /
 together gods-INS speak-3PL.IPF righteous.words-ACC
té cid āvāsur nahy āntam
 they-NOM even give.up-3PL.AOR for.not end-ACC
āpūḥ
 reach-3PL.PRF

⁷ Cf. Geldner (1951a: 221): ‘Nach Jahresfrist habt ihr heute in dieser (Welt) umgeschaut.’

⁸ Cf. Geldner (1951b: 426): ‘Dich haben gestern um diese Zeit die rührigen Männer getränkt, o Keulenträger.’

‘For even the previous (sages), who were performing pious work and discussed righteously with the gods, even they gave up, for they did not reach the end’⁹ (RV I 179.2a–c)

- c. *tád* *íd* *dhy* *àsya* *sávanam*
 this-NOM indeed for he-GEN soma.pressing-NOM
vivér *apó*
 do-3.SG.PRS.INJ job-ACC
yáthā purā mánave gātúm
 as previously Manu-DAT way-ACC
ásret /
 spread-3SG.AOR
góarṇasi tvāṣṭré
 abounding.in.cattle-LOC son.of.Tvaṣṭar-LOC
áśvanirṇiji
 decorated.with.horses-LOC
prá ~ im adhvaréṣv adhvarāṃ
 to indeed sacrifices-LOC sacrifices-ACC
aśíśrayuḥ //
 add-3PL.AOR

‘For this libation has accomplished his work—as it previously made the way even for Manu—at (the place of) Tvaṣṭar’s son, who is abounding in cattle and decorated with horses. Indeed they have added sacrifices to sacrifices’¹⁰ (RV X 76.3)

- d. *satrá sómā abhavann asya*
 altogether Somas-NOM become-3.PL.IPF he-GEN
vísve
 all-NOM
satrá mādāso bṛható
 altogether potions-NOM great-GEN
mádiṣṭhāḥ /
 most.intoxicating-NOM

⁹ Cf. Geldner (1951a: 257): ‘Denn selbst die Altvordern, die sich des Rechten befleißigten und mit den Göttern rechte Reden führten auch sie haben aufgehört [mit der Kasteigung], denn sie fanden nicht das Ende.’

¹⁰ Cf. Geldner (1951c: 257): ‘Denn diese Trankspende hat sein Werk vollbracht—wie sie ehemals dem Manu den Weg geebnet hat—bei dem Tvaṣṭarsohn, der eine Masse von Kühen hatte und mit seinen Rossen Staat machte. Sie haben Opfer zu Opfer gefügt.’

satrá ~ abhavo vásupatir
 altogether become-2.SG.IPF lord.of.wealth-NOM
 vásūnām
 riches-GEN
 dátre víśvā *adhithā* indra
 gift-LOC all-ACC help-2SG.AOR Indra-VOC
 kṛṣṭīḥ //
 races.of.men-ACC

‘All the somas became his altogether, the most intoxicating
 potions (belonged) to the great one. You became the wealth-
 lord of wealth, of the riches altogether. You helped all races
 of men to their gift’¹¹ (RV IV 17.6)

Other examples include (RV I 11.5, I 32.6, I 33.12;13;15, IV 30.15;18,
 V 2.7, V 32.3, X 86.23).¹² In the first example, the Aorist Indicative
 form *ápīpyan*¹³ ‘they made you swell’ is modified by the frame adverb
hyás ‘yesterday’ which unambiguously specifies a prehodiernal past
 reference time. In the second example, the Aorist Indicative form
ávāsūr ‘they gave up’ is modified by the adjective *púrve* ‘previous,
 former’ which specifies a remote past reference time. The Aorist
 Indicative form *ásret* ‘made even’ in the third example is modified
 by the adverb *purá* ‘previously, formerly’. This adverb also specifies a
 remote past reference time and it is likely that the events referred to
 are outside the sphere of the speaker’s experience. As Manu represents
 the father of mankind and the first sacrificer in Vedic mythology, the
 situation referred to here may be taken to be located in the mythical,
 remote past and not in the part of the past witnessed by the speaker.

In the fourth example, the Aorist Indicative form *adhithās* ‘you
 helped, have helped’ refers to a situation which is located in the

¹¹ Cf. Geldner (1951a: 438): ‘Ihm wurden alle Somatränke insgesamt zuteil, dem
 Hohen die berauschendsten Rauschtränke insgesamt. Du wardst der Herr der Güter
 insgesamt. Allen Völker hast du zu ihrem Anteil geholfen, Indra.’ I refer to Watkins
 (1995: 241–246) for a discussion of the Indo-Iranian formula type *gaṇāpati- gaṇānām*
 ‘throng-lord of throngs’.

¹² Cf. Delbrück (1876: 6–86, 1896: 281–283) for further examples.

¹³ I follow Kümmel (2000: 300) who takes the form to be a reduplicated causative
 Aorist of the verb *PAY* ‘swell’. However, as pointed out to me by Romano Lazzeroni
 (p.c. November 2007) the form is ambiguous. The example is therefore not as compel-
 ling as one could wish. The adverb *hyás* ‘yesterday’ is only attested three times in Early
 Vedic and occurs twice with forms from this stem and once with a Perfect Indicative
 form, cf. Chapter Five below.

mythical past, so an immediate past interpretation is excluded in this case. It should be noted, however, that the Early Vedic Aorist Indicative only very rarely occurs in contexts explicitly specifying a remote past reference time (cf. also Delbrück 1876: 86–88, Hoffmann 1967: 145–160, Tichy 1997: 591–602). On the face of it, these data suggest that the Early Vedic Aorist Indicative has an even more flexible time reference than the Imperfect. The Aorist Indicative is compatible with immediate past contexts, hodiernal past contexts and with recent as well as remote prehodiernal past contexts. It may therefore be regarded as a general past tense category, expressing that reference time is located prior to evaluation time ($t_E < t'$).

Having established that the Aorist Indicative has a flexible time reference, we may now turn to a discussion of its aspectual properties. First, we may note that, as a rule, two or more coordinated Aorist Indicative forms of telic verbal predicates denote two or more chronologically ordered situations, apparently always inducing a sequential interpretation. In contrast, Imperfect forms of telic verbal predicates are vague between a sequential and an overlapping reading, as discussed in Chapter Three. The following examples illustrate the sequential reading of the Aorist Indicative.

- (136) a. *ṛtāvārī* *divó* *arkáir*
 faithful-NOM heaven-GEN songs.of.praise-INS
 abodhy
 awake-3SG.AOR
 á *revátī* *ródasī* *citrám/*
 onto brilliant-ACC two.worlds-ACC brightly
 asthāt
 mount-3SG.AOR
 ‘The faithful (daughter) of heaven has awoken to (our) songs
 of praise. Brightly she has climbed onto the brilliant two
 worlds’¹⁴ (RV III 61.6ab)
- b. *ávidad* *dákṣam* *mitró* *návīyān*
 find-3SG.AOR power-ACC friend-NOM new-NOM

¹⁴ Cf. Geldner (1951a: 409): ‘Die ordnungsliebende (Tochter) des Himmels ward durch die Lobgesänge geweckt; die Reiche hat beide Welten prangend erstiegen.’

papānó devébhyo vāsyo
 drink-PRF.PRT.NOM gods-DAT better-ACC
acait /
 perceive-3SG.AOR
 sasavān staulābhir dhautāribhir
 win-PRF.PRT.NOM chants-INS frightening-INS
 uruṣyā pāyúr abhavat
 desire.to.protect-INS guard-NOM become-3SG.IPF
 sākhibhyaḥ //
 friends-DAT

‘The new friend found the power. Having drunk, he perceived that which is better for the gods. Having won by means of his frightening chants he became a guard with desire to protect his friends’¹⁵ (RV VI 44.7)

- c. avadyām iva mānyamānā gūhā ~
 Shame-ACC like think-PRS.PRT.NOM secretly
akar
 make-3SG.AOR
 índraṃ mātā vīryeṇā
 Indra-ACC mother-NOM manliness-INS
 ny`ṛṣṭam /
 bristling-ACC.SG
 áthā úd *asthāt* svayām átkam
 but up rise-3SG.AOR self armor-ACC
 vāsāna
 wear-PRS.PRT.NOM

¹⁵ Cf. Geldner (1951b: 138): ‘Als jüngster Freund hat er (für sie) die Tatkraft gefunden; getrunken hat er für die Götter das Bessere erkannt. Reichbelohnt durch ward er rettungsbereit seinen Freunden ein Schützer.’ My translation is based on the assumption that the hapax *staulā* is a nominal vridhhi-derivation from an unattested agent noun **stula* ‘one who chants, celebrates’ which in turn would be derived from the verb STAV- ‘to praise, chant’. Although the suffix *-la* primarily attaches to noun stems in Early Vedic, there are some examples of deverbative agent nouns formed with this suffix as well (cf. Wackernagel and Debrunner 1954: 862–866). I take the second hapax *dhautāri* to represent the feminine stem of an adjective *dhautāra-* ‘belonging to one who causes to tremble’ derived from an unattested agent noun **dhotar-* ‘shaker, one who agitates, causes to tremble’ belonging to the verb DHAV¹- ‘shake, agitate, cause to tremble’. It should be noted, however, that one would expect such an adjective to have the form **dhaútrī* or **dhautrí* (cf. Wackernagel and Debrunner 1954: 126).

ā ródasī aprṇāj jáyamānaḥ //
 up two.worlds-ACC fill-3SG.IPF be.born-PRS.PRT.NOM
 ‘As if she regarded him as a shame, the mother removed
 Indra, who was bristling with manliness. But he stood up,
 wearing his armor; (just) being born he filled up the two
 worlds’¹⁶ (RV IV 18.5)

Other examples include (RV I 123.1;2, V 30.12, VI 47.22, VII 76.1, VIII 48.3, IX 32.5, X 155.5). In the first and second examples, the situations denoted by the Aorist Indicative forms *abodhi* ‘awoke, has awoken’, *ávidat* ‘found, has found’, *acait* ‘perceived, has perceived’ are temporally and causally prior to the situation denoted by the Aorist Indicative forms *ā asthāt* ‘climbed, has climbed’, *acait* ‘perceived, has perceived’ and the Imperfect form *abhavat* ‘became, was becoming’.

The third example, however, represents a potential exception to the general rule stated above. Although the situation denoted by the Aorist Indicative form *akar* ‘made, has made’ precedes the situation denoted by the following Aorist Indicative form *asthāt* ‘rose, has risen’, the latter situation appears to be temporally overlapping with the situation denoted by the Imperfect form *aprṇāt* ‘filled, was filling’. If this interpretation is correct, it could be taken as a *prima facie* indication that Aorist Indicative forms of telic verbal predicates are, in fact, compatible with a temporally overlapping interpretation. However, we have already seen that the Imperfect is compatible with a temporally overlapping reading and it would be more parsimonious to take the Imperfect form rather than the Aorist Indicative form to license the temporally overlapping reading here.

The general rule that Aorist Indicative forms of telic verbal predicates denote a situation which has been terminated within the boundaries of the reference time interval indicates that forms of this type are particularly associated with a completive-sequential reading ($t_E \subset t'$). This fact seems to preclude the possibility that the Aorist has an imperfective meaning, but it could still be taken to denote either the perfective aspect ($t_E \subseteq t'$) or the neutral aspect ($t' \otimes t_E$). In the latter case, the Aorist Indicative would have the same basic aspectual semantics as

¹⁶ Cf. Geldner (1951a: 442): ‘Als ob sie ihn für einen Schandfleck hielte, hat die Mutter den Indra versteckt, der von Manneskraft strotzte. Da erhob er sich, selbst sein Gewand umlegend; der Neugeborene füllte beide Welthälften an.’

the Imperfect. However, in order to establish this we need to examine the various other contextually determined readings associated with the Aorist Indicative.

As a first approximation, we may note that Aorist Indicative forms are systematically used to express the relative past relation in relative temporal clauses, as has been noted by several previous scholars (cf. e.g. Delbrück 1888: 578–579, Hoffmann 1967: 159, Tichy 1997: 599). Consider, for instance, the following examples:

- (137) a. *yadā carīṣṇú mithunāv*
 when wandering.about-NOM pair-NOM
ābhūtām
 become-3DU.AOR
ād ít prāpaśyan bhúvanāni
 and.right.then indeed see-3PL.IPF beings-NOM
vísṡā //
 all-NOM
 ‘When the wandering pair (the sun and the moon) had appeared, then indeed all beings could see’¹⁷ (RV X 88.11cd)
- b. *yadā samaryāṃ vy áced řghāvā*
 when battle-ACC apart note-3SG.AOR enraged-NOM.SG
dirghāṃ yád ājím abhy ákhyad
 long-ACC when combat-ACC over witness-3SG.AOR
aryāḥ /
 enemy-GEN
ácikradad vřṣaṇaṃ pátny ácchā
 call-3.SG.AOR bull-ACC wife-NOM into
duroṇā á níśitaṃ somasúdbhiḥ //
 house-LOC towards strengthened-ACC soma.pressers-INS
 ‘When he, enraged, had become aware of the battle, and witnessed the long combat against the enemy to its end, (his) wife called him, the bull who was strengthened by those pressing soma, into the house’¹⁸ (RV IV 24.8)

¹⁷ Cf. Geldner (1951c: 281): ‘Als das wandelnde Paar erschien, da erst sahen alle Welten.’

¹⁸ Cf. Geldner (1951a: 452): ‘Als er den drohenden Streit gemustert, als er dem langen Wettstreit des Nebenbuhlers zugesehen hatte, hat die Gattin den Bullen herbei ins Haus gerufen, der von den Somapressenden geködert wurde.’

- c. *yadā́* ~ *íd* *ádevīr* *ásahiṣṭa*
 When indeed godless-ACC defeat-3SG.AOR
māyā́
 sorceries-ACC
áthā ~ *abhavat* *kévalaḥ* *sómo*
 then become-3SG.IPF exclusive-NOM Soma-NOM
asya //
 he-GEN
 'Indeed, when he had defeated (the) godless sorceries, then
 the soma became his alone'¹⁹ (RV VII 98.5cd)

Other reasonably unambiguous examples include (RV I 51.4, I 52.2, I 87.5, I 103.7, I 161.4, I 163.7, IV 33.2, V 30.5, V 31.8, VIII 12.26, X 113.3). It was noted in Chapter Three that subordinating conjunctions like *yadā́* 'when' and *yád* 'when' shift the evaluation time (t_0) from speech time (t_s) to the reference time of the main clause. In this kind of clause, the Aorist Indicative typically denotes a situation which has been completed prior to the situation denoted by the verb in the main clause. In these examples, the situations denoted by the Aorist Indicative forms *ábhūtām* 'the two became', *áacet* 'became aware of, has become aware of' and *ákhyat* 'witnessed, has witnessed' and *ásahiṣṭa* 'defeated, has defeated' are temporally and causally prior to the situations denoted by the Imperfect form *prápaśyan* 'saw, were seeing', the Aorist Indicative form *ácikradad* 'called, has called' and the Imperfect form *abhavat* 'became, was becoming' in the corresponding main clauses. Note that a similar temporal relationship seems to hold between the situations denoted by the two Aorist Indicative forms *áacet* 'became aware of, has become aware of' and *ákhyat* 'witnessed, has witnessed' in the relative clauses in (137b). We take the predicates *VÍ-CET- samaryám* 'become aware of the battle' and *ABHÍ-KHYĀ- dīrghám ājīm* 'witness the long battle to its end' to represent telic verb phrases. Our interpretation of this stanza is based on the assumption that the former predicate denotes a situation which represents a necessary causal prerequisite for the second situation. It is therefore likely that these two predicates denote two situations in a sequence and that the first situation is represented as having terminated prior to the second.

¹⁹ Cf. Geldner (1951b: 268): 'Sobald er die gottlosen Blendwerke bemeistert hatte, da gehört der Soma ihm ausschließlich.'

Significantly, example (137c) indicates that Aorist Indicative forms of atelic predicates may also assume a relative past reading in relative temporal clauses. The verbal predicate *SAH- ádevīr māyā́* ‘defeat god-less sorceries’ is a process predicate, as it has a bare plural internal argument. The fact that the Aorist Indicative in these and similar cases (cf. e.g. RV I 87.5, X 92.3) denotes a situation which has been terminated prior to the situation in the main clause may be taken to indicate that it introduces an endpoint, one might say, when the predicate does not specify a natural endpoint for the situation. The Imperfect, on the other hand, remains ambiguous in this respect, as noted in Chapter Three. If this interpretation is correct, this would represent a strong *prima facie* indication that the Aorist Indicative in fact represents a past perfective category.

Significantly, there is some evidence that Aorist Indicative forms are used to express relative past in coordinate clauses as well (cf. also Hoffmann 1967: 178–179, Tichy 1997: 599). This is most obviously seen in cases where the chronological order of causally related situations is broken by a flashback in the temporal progression, as illustrated by the examples in (138):

- (138) a. *śúnaś cic chépaṃ níditaṃ sahásrād*
 even Śunaḥśepa-ACC bound-ACC thousand-ABL
yūpād amuñco áśamiṣṭa
 sacrificial.pole-ABL release-2SG.IPF be.prepared -3SG.AOR
hí śāḥ /
 for he-NOM
 ‘You even released Śunaḥśepa who was bound for a thousand from the sacrificial pole, for he had been prepared (for sacrifice)’²⁰ (RV V 2.7ab)
- b. *tyásya cin maható nír mṛgásya*
 that-GEN even great-GEN off beast-GEN
vádhar jaghāna táviṣibhir índraḥ /
 weapon-ACC strike-3SG.PRF power-INS Indra-NOM
yá éka íd apratír
 who-ACC one-NOM indeed invincible-NOM
mányamāna
 think-PRS.PRT.NOM

²⁰ Cf. Geldner (1951b: 4): ‘Selbst den Śunaḥśepa, der um ein Tausend angebunden war, hast du von dem Pfahle losgemacht, denn er war schon (für das Opfer) hergerichtet.’

ád asmād anyó *ajaniṣṭa*
 then he-ABL another-NOM be.born-3.SG.AOR
 távyān //
 stronger-NOM.SG

‘Even the weapon of that great wild beast, who indeed thought himself the only invincible, Indra powerfully struck off. Then another stronger than him had been born’²¹ (RV V 32.3)

Other possible examples include (RV I 92.2, II 36.1, VII 78.4, VII 83.3, VIII 48.11). In the first example cited above, the Aorist Indicative form *ásamiṣṭa* ‘was prepared, has been prepared’ denotes a situation which is located prior to the situation denoted by the immediately preceding Imperfect form *amuñcas* ‘released, was releasing’. The second example also represents a fairly clear-cut case. The situation denoted by the Aorist Indicative form *ajaniṣṭa* ‘was born, has been born’ is causally and temporally prior to the situation denoted by the Perfect Indicative form *jaghāna* ‘struck, has struck’ in the preceding main clause. In both of these cases the Aorist Indicative forms signal a flashback in the temporal progression resulting in a shift in temporal perspective.

Recall from the discussion in Chapter Three that the Imperfect is also compatible with a relative past reading, but that the Aorist Indicative is more frequently met with in this type of environment. It may therefore be regarded as the main expression of relative past in Early Vedic (cf. e.g. Delbrück 1888: 578–579, Hoffmann 1967: 159, Tichy 1997: 599). This fact can be interpreted in different ways, not least because past neutral categories like the English Simple Past may assume a relative past reading under certain circumstances, as discussed earlier in this work. Hoffmann (1967: 157) takes the fact that the Aorist Indicative is strongly associated with a relative past reading as an indication that it denotes the perfective aspect. This assumption is plausible, as past perfective categories typically convey this reading in languages which do not have a special category for expressing the relative past relation, as illustrated by the following examples from Russian and Ukrainian (after Grønn 2007: 518 and Paslawska and von Stechow 2000: 1):

²¹ Cf. Geldner (1951b: 30): ‘Selbst jenes großen Tieres Waffe schlug Indra mit aller Kraft weg, das sich allein ohne ebenbürtiger Gegner glaubte. Da war ein anderer Stärkerer als er entstanden.’

- (139) a. Когда Карпов стал чемпионом мира,
 When Karpov become-PST.PFV champion world
 он уже *выиграл* чемпионат мира
 he already win-PST.PFV championship world
 среди юношей
 among juniors
 'When Karpov became world champion, he had already won
 the junior world-championship'
- b. Natal'a pišla do školy o vos'mij hodyni.
 Natal'a go-PST.PFV to school at 8 o'clock
 O s'omij vona *prokynulas'*
 At seven she awake-PFT
 'Natal'a went to school at 8 o'clock. She had awoken at seven'

Correspondences like those found in (137), (138) and (139) could be taken to indicate that the Aorist Indicative has a past perfective meaning. This assumption would provide a straightforward explanation for the fact that it tends to be preferred to the Imperfect in relative past contexts. A past perfective category represents a less ambiguous way of expressing the relative past than a past neutral category which typically tends to be vague between a completive-sequential and a progressive-processual reading and hence can also be used to express temporal overlap in the past.

The assumption that the Aorist Indicative represents a past perfective category is corroborated by other types of evidence as well. Tichy (1997: 599–600) has noted that Aorist Indicative forms are sometimes used in non-immediate past contexts to refer to a situation which has already been introduced in the discourse either explicitly or implicitly. Consider the following passages:

- (140) a. bhūr jajña uttānápado
 world-NOM be.born-3.SG.PRF creative.power-ABL
 bhuvá āśā ajāyanta /
 world-ABL regions-NOM be.born-3PL.IPF
 áditer dākṣo ajāyata
 Aditi-ABL Dakṣa-NOM be.born-3SG.IPF
 dākṣād v áditiḥ pári //
 Dakṣa-ABL and Aditi-NOM from
 áditir hy *ājaniṣṭa*
 Aditi-NOM for be.born-3SG.AOR

dákṣa yá duhitā táva /
 Dakṣa-VOC who-NOM.SG daughter-NOM.SG you-GEN
 táṃ devā ánv ajāyanta
 she-ACC gods-NOM after be.born-3.PL.IPF
 bhadrá amṛtabandhavaḥ //
 happy-NOM.PL companions.of.immortality-NOM
 ‘The world was born from creative power, the regions (of
 heaven) were born from the world. Dakṣa was born from
 Aditi and Aditi from Dakṣa. For Aditi who is your daughter,
 Dakṣa, had been born. After her the gods were born, the
 blessed companions of immortality’²² (RV X 72.4–5)

- b. sūktavākám prathamám ád id
 hymn.recitation-ACC first and.right.then
 agnīm
 Agni-ACC
 ád id dhavír ajanayanta
 and.right.then libation-ACC cause.to.be.born-3PL.IPF
 devāḥ /
 gods-NOM
 sá eṣām yajñó abhavat
 this-NOM they-GEN sacrifice-NOM become-3SG.IPF
 tanūpās
 self.protecting-NOM
 tám dyáur veda tám
 he-ACC heaven-NOM know-3SG.PRF he-ACC
 pṛthivī tám āpaḥ //
 earth-NOM he-ACC air-NOM
 yám devāsó ’janayanta ~
 who-ACC gods-NOM cause.to.be.born-3PL.IPF
 agnīm
 Agni-ACC
 yásminn ájuhavur bhúvanāni
 who-LOC.SG make.oblation-3SG.IPF beings-ACC
 víśvā /
 all-ACC

²² Cf. Geldner (1951c: 251): ‘Die Erde wurde von den Kauernden geboren, aus der Erde entstanden die Welträume. Von Aditi wurde Dakṣa geboren und von Dakṣa die Aditi. Denn Aditi wurde geboren als deine Tochter, o Dakṣa. Nach ihr wurden die Götter geboren.’

só arcíṣā pṛthivīm dyām utá ~
 he-NOM flame-INS earth-ACC heaven-ACC and
 imām
 this-ACC
 ṛjūyāmāno atapan
 tend.straight.upward-PRS.PRT.NOM heat-3.SG.IPF
 mahitvā //
 greatness-INS
 stómena hí diví devāso agním
 praise-INS for heaven-LOC gods-NOM Agni-ACC
 ájījanañ chákṭibhī
 cause.to.be.born-3PL.AOR powers-INS
 rodasiprām /
 filling.the.earth-ACC.SG
 tám ū akṛṇvan tredhā bhuvé kām
 he-ACC and make-3PL.IPF in.three.parts be-INF PTC
 sá óṣadhīḥ pacati
 he-NOM plants-ACC ripen-3SG.PRS
 viśvárūpāḥ //
 of.all.forms-ACC.PL

‘First the gods created recitation, then Agni, then libation. This became their self-protecting sacrifice. Heaven knows him, the earth and the air (know) him, Agni, whom the gods created, in whom they sacrificed all existing things, heated the earth and the heaven with his flame with his greatness, tending straight upward. For the gods have created Agni in heaven with praise, who fills the world with his power. They made him threefold. He ripens plants of all forms’²³ (RV X 88.8–10)

Other possible examples include (RV I 80.2–7, I 187.1–6). In the first case, the Aorist Indicative form *ájaniṣṭa* ‘was born, has been born’ refers to a situation which has already been introduced in the preceding

²³ Cf. Geldner (1951c: 281): ‘Die Götter schufen zuerst den Liedvortrag, dann den Agni, dann die Opferspende. Dies ward ihr Opfer, das sie sich selbst schützt. Dieses kennt der Himmel, dieses die Erde, dieses das Wasser. Agni, den die Götter erschufen, in dem sie alle Welten opferten, der erhitzte mit seinem Strahl die Erde und diesen Himmel mit Macht in redlicher Absicht. Denn unter Preislied hatten die Götter im Himmel den Agni erzeugt, der mit seinen Kräften die Welt erfüllt. Sie machten dass er sich dreifach teilte. Er bringt die verschiedenartigen Pflanzen zur Reife.’

context. Although there is no explicit Imperfect form referring to just this situation, it is reasonable to assume that the sentence *dákṣād u áditiḥ pári* ‘and Aditi from Dakṣa’ is elliptical, so that the preceding Imperfect form *ajāyata* ‘was born, was being born’ may be supplied from the context. It is this situation the Aorist Indicative form picks up and emphasizes. As the immediately following context has a past reference time, a Past Perfect form seems the best translation of the Aorist Indicative form.

In the second example, the Aorist Indicative form *ájijanan* ‘created, have created’ refers to a situation which has already been mentioned twice in the preceding context by the Imperfect form *ajanayanta* ‘caused to be born, were causing to be born’ in the first sentence and in the relative clause. As the Present Indicative form *pacati* ‘he ripens, is ripening’ in the last sentence of this discourse fragment may be taken to refer to a habitually recurring situation, it appears that the Aorist Indicative form *ájijanan* ‘created, have created’ is used with a resultative-like implicature (cf. Tichy 1997: 599–600). This form may be interpreted as a statement about a situation which has been terminated prior to speech time and has a resultant state which is still considered relevant at speech time. Within the framework adhered to in this work, this aspecto-temporal relation may be analyzed as ‘reference time properly includes event time and is immediately adjacent to speech time’ ($t_E \subset t'$, $t' > t_s/t_0$). Although past perfective as well as past neutral categories would, in principle, be compatible with this implicature, it is typically associated with the former category type rather than the latter. On the basis of the previous discussion, it is therefore reasonable to take the resultative reading of the Aorist Indicative as an indication that it represents a past perfective category ($t_E \subseteq t'$, $t' < t_s/t_0$).

Interestingly, passages like those just discussed represent an environment where Aorist Indicative forms may justly be said to have a statement-of-fact-like function, a function which has played an important role in previous discussions of the Early Vedic past tenses as noted in the introductory chapter (cf. e.g. Delbrück 1897: 281–283, Hoffmann 1967: 155–157, Tichy 1997: 595–598, Kiparsky 1998: 31–32, Mumm 2002: 158–161). In many respects, Delbrück’s (1896: 282) claim that the Aorist Indicative is occasionally used to ‘assert’ (*behaupten*) that a situation has taken place in the past seems to have, at least in part, been motivated by the intuition that it sometimes has a mark-

edly resultative reading. From this perspective it is significant that the Aorist Indicative forms *ájaniṣṭa* ‘was born’ and *ájijanan* ‘created’ are both in the scope of the particle *hí* ‘for, because’, something which, among other things, is shown by the fact that they are accentuated (cf. also (138a) above). Although a precise analysis of the notion of a *statement of fact* and how it interacts with the meaning of *hí* ‘for, because’ would lead us far beyond the scope of this book, it might be worthwhile to briefly explore how this interaction can be accounted for within the framework developed here. In Chapter One it was suggested that the canonical function of assertive clauses consists of adding propositions to the Common Ground, i.e. the knowledge or set of assumptions shared by the speaker and the hearer, presupposing that each new proposition contains new and previously unmentioned information. However, a restriction along these lines would seem to yield an intuitively unreasonable notion of assertive clauses, as it should be fairly uncontroversial that this clause type may contain new and unmentioned information as well as old and given information. Nevertheless, it is tempting to suggest that assertive clauses containing new information represent the default case. As a statement of fact typically consists of highlighting information which is or should be known by the hearer, it is tempting to link this discourse function to assertive clauses containing old and given information rather than to particular morphosyntactic categories, as has been done previously in Vedic scholarship (cf. Delbrück 1876, 1888, 1896, Thieme 1929, Hoffmann 1967 etc.). This assumption would accommodate the objection made by Tichy (1997: 596–598), Mumm (2002: 158–161) and others that the Imperfect also seems to be used occasionally to state a fact. Tichy (1997) quotes the following passages, familiar from the discussion previously in this book:

- (141) a. *ásāsam* *tvā* *vidúṣī*
 instruct-1SG.IPF you-ACC know-PRF.PRT.NOM
 sāsminn *áhan*
 that-LOC day-LOC
 ná *ma* *áśṛṇoh* *kím* *abhúg*
 not I-GEN listen-2SG.IPF why fruitlessly
 vadāsi //
 speak-2SG.PRS.SBJ

‘On that day I, who knew, was instructing you, but you did not listen to me. Why will you now speak fruitlessly?’²⁴ (RV X 95.11cd)

- b. yád *adyá* tvā prayatí
 As today you-ACC go.on-PRS.PRT.LOC
 yajñé asmín
 sacrifice-LOC this-LOC
 hótas cikivó *’vṛṇīmahī* ~ ihá /
 Hotar-VOC wise-VOC choose-1.PL.IPF here
 ‘As we chose you at this ongoing sacrifice here today, O wise Hotar (...)’²⁵ (Rigveda III 29.16ab)

In these cases, it is reasonable to assume that the Imperfect forms *ásāsam* ‘I instructed, was instructing’, *ásṛṇos* ‘you listened, were listening’ and *avṛṇīmahī* ‘we chose, were choosing’ denote situations which are already known to the hearer, so that the sentences in which they are found may be reasonably regarded as statements of facts.

With these observations in mind, we may now return to the particle *hí* ‘for, because’, which in cases like those cited in (140) appears to have a resumptive function, that is, to highlight information which has already been mentioned in the previous discourse context. The examples in (142) illustrate that this particle can also be used to highlight information which has not been previously mentioned, but which still may be characterized as given in the sense that it may be taken to be known to the hearer as well as the speaker:

- (142) a. ṛbhúr víbhvā vāja índro
 Ṛbhu-NOM Vibhvan-NOM Vāja-NOM Indra-NOM
 no áccha ~
 we-GEN towards
 imám yajñám ratnadhéyā ~ úpa
 this-ACC sacrifice-ACC givings.of.gifts-ACC to
 yāta /
 drive-2PL.PRS.IMP

²⁴ Cf. Geldner (1951c: 302): ‘Ich warnte dich, die Wissende, an dem gleichen Tage; du hörtest nicht auf mich. Was willst du fruchtlos reden.’ Tichy (1997: 597) has essentially the same interpretation: ‘Ich habe dich (damals) belehrt, da ich es wußte, am selben Tage; du hast nicht auf mich gehört. Was willst du (jetzt) nutzlos reden?’

²⁵ Cf. Geldner (1951a: 363): ‘Da wir dich heute bei diesem beginnenden Opfer, du kundiger Hotṛ, erwählt haben’ Cf. also Tichy’s (1997: 597–598) translation: ‘Weil wir heute, als dieses Opfer begann, kundiger Hotar, dich uns erwählt haben’.

idā hí vo dhiṣāṇā devy
 now for you-DAT Dhiṣāṇā-NOM goddess-NOM
 áhnām ádhāt
 days-GEN put-3SG.AOR
 pītīm sám mādā
 draught-ACC together intoxicating.drinks-NOM
 agmatā vah //
 come-3PL.AOR you-DAT

‘Ṛbhu, Vibhvan, Vāja, Indra, drive hither to this sacrifice of ours, to the distributions of gifts! For the goddess Dhiṣaṇa has set up a draught (sacrifice) for you at this time of day. The intoxicating drinks have been gathered for you’²⁶ (RV IV 34.1a–c)

- b. tvām hy àgne sádām ít samanyávo
 you-ACC for Agni-VOC always indeed unanimous-NOM
 devāso devám aratīm nyeriré
 gods-NOM god-ACC charioteer-ACC appoint-3PL.PRF
 ‘For, Agni, the gods have always unanimously appointed you, the god, as (their) charioteer’²⁷ (RV IV 1.1a–c)

- c. tvām hy àgne prathamó manótā ~
 you-NOM for Agni-VOC first-NOM inventor-NOM
 asyā dhiyó ábhavo dasma
 this-GEN prayer-GEN become-3SG.IPF wonderful-VOC
 hótā /
 hotar-NOM
 ‘For you became the first inventor and hotar of this prayer, O wonderful Agni’²⁸ (RV VI 1.1ab)

As the above examples are taken from the first verse of their respective hymns, it would hardly be tenable to claim that the particle *hí* ‘for, because’ has a resumptive reading here. Nevertheless, the situations denoted by the Aorist Indicative form *ádhāt* ‘put, has put’, *nyeriré* ‘have appointed’ and *ábhavas* ‘became, was becoming’ may be assumed to

²⁶ Cf. Geldner (1951a: 463–464): ‘Ṛbhu, Vibhvan, Vāja, Indra, kommet her zu diesem Opfer von uns, zur Belohnung, denn zu dieser Tageszeit hat euch die Göttin Dhiṣaṇā den Trank bestimmt. Eure Räusche sind in Gesellschaft.’

²⁷ Cf. Geldner (1951a: 412): ‘Dich, Agni, den Gott, haben ja die Götter jederseits einmütig zu ihren Wagenlenker bestellt, in diesem Sinne bestellt.’

²⁸ Cf. Geldner (1951b: 92): ‘Du, Agni, warst ja der erste Ersinner und Opferpriester dieser Dichtung.’

represent given rather than new information, as they refer to situations which may be expected to be known to the addressee. The examples in (140) and (142) may be taken to suggest that *hí* ‘for, because’ represents one way of signaling that a given assertive clause is used to state a fact. It should be noted that although the passages cited in (140) through (142) indicate that the Aorist Indicative, the Perfect Indicative and the Imperfect can all be used to ‘state a fact’ about a past situation, the two former categories seem to be generally preferred to the latter. Leaving aside the Perfect Indicative for the moment, these distributional facts may be taken as *prima facie* evidence that a resultative implicature is more readily available for the Aorist Indicative than for the Imperfect, something which in turn would follow neatly from the assumption that the Aorist denotes the perfective aspect, whereas the Imperfect denotes the neutral aspect.

Interestingly, this conclusion seems to be corroborated by another morphosyntactic peculiarity which to my knowledge has not been previously noted (cf., however, Gonda 1962: 80–92). In some passages referring to situations in the objectively remote, mythical past, an isolated second person Aorist form occurs in a sequence of third person Imperfect forms. This characteristic change in tense and person may be illustrated by the following examples:

- (143) a. *ny* *àvidhyad* *ilibíśasya* *dṛḷhā*
 within pierce-3SG.IPF Ilibíśa-GEN strongholds-ACC
ví *śṛṅgīṇam* *abhinac* *chúṣṇam*
 apart horned-ACC cleave-3SG.IPF Śuṣṇa-ACC
índraḥ /
 Indra-NOM
yávat *táro* *maghavan*
 so.great-NOM strength-NOM bountiful-VOC
yávad *ójo*
 so.great-NOM power-NOM
vájreṇa *śátrum* *avadhīḥ* *pṛtanyúm* //
 mace-INS enemy-ACC strike-2SG.AOR hostile-ACC
 ‘He pierced Ilibíśa’s strongholds, Indra split the horned
 Śuṣṇa apart. As great as your strength, as great as your power
 was, O bountiful one, you struck the hostile enemy with the
 mace’²⁹ (Rigveda I 33.12)

²⁹ Cf. Geldner (1951a: 40): ‘Indra warf die Festen des Ilibíśa nieder, er zerhieb den

- b. utá tyá turváśāyādū
 and those-ACC Turvaśa.and.Yadu-ACC
 asnātārā śácipátih /
 not.swimmers-ACC lord.of.might-NOM
 índro vidvām apārayat //
 Indra-NOM skilful-NOM bring.safely.over-3SG.IPF
 utá tyá sadyá áryā saráyor
 and that-ACC at.once enemies-ACC Sarayu-GEN
 indra pārātaḥ /
 Indra-VOC on.the.opposite.bank
 arñācitrārathā *avadhīḥ* //
 Arṇa.and.Citraratha-ACC strike-2.SG.AOR
 ‘And Indra, the skilful lord of might, brought Turvaśa and
 Yadu who could not swim over (to the other shore) and, Indra,
 you immediately struck the two enemies Arṇa and Citraratha
 from the opposite bank of the (river) Sarayu’³⁰ (RV IV 30.17–18)
- c. purām bhindúr yúvā kavír
 strongholds-GEN breaker-NOM young-NOM seer-NOM
 ámitaujā ajāyata /
 of.unbounded.energy-NOM be.born-3SG.IPF
 índro víśvasya kármaṇo
 Indra-NOM all-GEN accomplishment-GEN
 dhartā vajrí puruṣtutāḥ //
 bearer-NOM mace.holder-NOM much.praised-NOM
 tvām valāsyā gómató
 you-NOM Vala-GEN rich.in.cows-GEN
 ‘pāvar adrivo bílam /
 open-3SG.AOR lord.of.the.rock-VOC cave-ACC
 tvām devā ábibhyuṣas

gehörnten Śuṣṇa. Mit ganzer Wucht, mit ganzer Kraft hast du Gabenreicher mit der Keule den kampflustigen Feind geschlagen.’

³⁰ Cf. Geldner (1951a: 458): ‘Auch den Turvaśa und Yadu, die beide keine Schwimmer waren, hat der Kräfteherr Indra kundig hinübergerettet. Auch jene beiden Arier Arṇa und Citraratha hast du, Indra, sofort jenseits der Sarayu geschlagen.’ Note, however, that Hoffmann (1967: 185) interprets the contracted words *arñācitrārathāvadhiḥ* as *arñācitrārathā vadhiḥ* and takes the verb form to be an Aorist Injunctive and translates the passage as follows: ‘Und auch die Nichtschwimmer Turvaśa und Yadu brachte der Machtherr Indra kundig ans andere Ufer. Und auch die beiden Arier Arṇa und Citraratha erschlägst du, Indra, sogleich am anderen Ufer des Sarayu.’ Tichy (1995: 107) translates the first half of this passage as follows: ‘Und auch sie beide, Turvaśa und Yadu, führte Indra, der Herr der Kraft, kundig (durch den Strom), ohne dass sie untertauchten.’

you-ACC gods-NOM fearless-ABL
 tujyāmānāsa āviṣuḥ //
 be.vexed-PRS.PRT help-3PL.AOR

‘The destroyer of strongholds, the youthful seer was born with boundless power, Indra, the preserver of every accomplishment, the holder of the mace who is praised by many. O lord of the rock, you opened the cave of Vala who is rich in cows. Being vexed by the fearless one the gods assisted you’³¹ (RV I 11.4–5)

In these passages the god Indra is praised for his mythical deeds and hence the reference time may be taken to be the remote, mythical past. Given what has been said about the temporal semantics of the Imperfect, the fact that we find the third person Imperfect forms *āvidhyat* ‘covered’, *abhinat* ‘cleft’, *apārayat* ‘brought safely over’ and *ajāyata* ‘was born’ in this type of context is hardly surprising. Aorist Indicative forms like *avadhīs* ‘struck, have struck’ and *āpāvar* ‘open’ are much less commonly used in remote past contexts and tend to have a markedly resultative meaning, as just noted. It is not immediately clear, however, that they have a properly resultative reading in the cases cited in (143). In my opinion at least, a simple past reading seems more likely, and hence, we might need to find another explanation for the use of the Aorist Indicative in these stanzas.

As the relevant forms also differ with regard to person marking, it is reasonable to assume that the shift from the Imperfect to the Aorist is somehow linked to the shift from third to second person. By using a third person form, the speaker does not include the referent as a participant in the speech situation, while a second person form indicates that the referent is directly included in the speech situation. This shift thus indicates that the poet significantly changes his attitude towards the one being praised. Given the nature and function of the Early Vedic texts, this type of change in grammatical person hardly strikes one as particularly surprising. However, it is remarkable that this change is accompanied by a parallel change from the Imperfect to the Aorist Indicative and this may be taken as evidence that the Aorist represents

³¹ Cf. Geldner (1951a: 12): ‘Der Burgenbrecher, der jugendliche Seher wurde mit unermesslicher Kraft geboren, Indra, der jegliches Werk durchsetzt, der vielgepriesene Keulenträger. Du hast des rinderreichen Vala Höhle aufgeschlossen, du Herr des Preßsteins. Dir haben die Götter beigestanden vor dem Furchtlosen erschreckend.’

the situation as subjectively proximate or as particularly important at the time of the utterance, without necessarily implying that the state resulting from the completion of the situation still holds at speech time.³² What seems to be relevant here is the inference that the reference time immediately precedes speech time ($t' > t_s/t_0$). Contrasts like those illustrated in (143) may be taken as an indication that the Aorist represents a more optimal way to express the subjectively proximate past than the Imperfect. If it is correct that the Aorist has a past perfective meaning ($t_E \subset t'$, $t' < t_0$) and the Imperfect has a past neutral meaning ($t' \otimes t_E$, $t' < t_0$), the Early Vedic temporal remoteness system could be accounted for in a similar manner as the remoteness system found in Russian where a past perfective category tends to block a past neutral category from subjectively proximate past contexts, as briefly discussed in Chapter One. According to this analysis the remoteness readings of the Early Vedic past tense categories represent different implicatures arising from their different aspectual specifications.

It was briefly noted above that Aorist Indicative forms of atelic predicates in some cases seem to introduce a temporal boundary for the situation denoted by the predicate. This effect is particularly apparent when forms of this type are modified by a durative adverbial phrase, as illustrated by the examples in (144).

- (144) a. *bahvīḥ* *sāmā* *akāram* *antār*
 Many-ACC years-ACC make-1SG.AOR within
asminn
 this-LOC
īndraṃ *vṛṇānāḥ* *pitāraṃ*
 Indra-ACC choose-PRS.PRT.NOM father-ACC
jahāmi /
 leave-1SG.PRS
 'For many years I have worked here. Choosing Indra, I am
 (now) leaving my father'³³ (RV X 124.4ab)

³² Note that a case could also be made for the claim that the relevant sentences are used to focus information which is shared by the speaker and hearer and hence they may be taken to state a fact. However, as suggested by the previous discussion it remains highly dubious whether this discourse function can be directly linked to the Aorist Indicative.

³³ Cf. Geldner (1951c: 354): 'Viele Jahre war ich ihm tätig. Da ich Indra erwähle, verlasse ich den Vater.'

- b. imám no agna úpa yajñám
 this-ACC we-GEN Agni-VOC toward sacrifice-ACC
 éhi
 come-2SG.PRS.IMP
 páñcayāmaṃ trivṛtaṃ
 having.five.courses-ACC having.three.parts-ACC
 saptátantum /
 having.seven.threads-ACC
 áso havyavāl utá naḥ
 be-2SG.PRS.SBJ oblation.carrier-NOM and we-GEN
 purogá
 leader-NOM
 jyóg evá dīrghám táma áśayiṣṭhāḥ //
 long truly deep-ACC darkness-ACC lie-3SG.AOR
 ‘Agni, come to this our sacrifice, which has five courses,
 consists of three parts and seven treads. You shall be our
 oblation-carrier and our leader. Truly, you have been lying
 in the deep darkness for (too) long’³⁴ (RV X 124.1)

Compare also (RV I 33.15, II 30.10). Although scholars describe this use of the Aorist Indicative in different terms (cf. e.g. Delbrück 1897: 278ff., Hoffmann 1967: 156–157, Tichy 1997: 601–602), there seems to be a basic agreement that Aorist Indicative forms like *akaram* ‘I made, have made’ and *áśayiṣṭhāḥ* ‘you were lying, have been lying’ in cases like these express that a situation has been going on for a long time (*bahvīḥ sámās* ‘for many years’, *jyók* ‘for a long time’³⁵) but no longer holds at speech time, as indicated by the immediately following sentences. Recall from the discussion in Chapter One above that durative adverbial phrases typically imply that event time is coextensive with reference time ($t' = t_E$). The Aorist Indicative may thus be taken to have this aspectual meaning in examples like those cited in (144). The examples in (145) may serve as a further illustration that Aorist Indicative forms of atelic verbal predicates tend to impose a temporal boundary on the situation denoted by the predicate.

³⁴ Cf. Geldner (1951c: 353): ‘Agni! Komme zu diesem unserem Opfer, das fünf Gänge, drei Schichten, sieben Fäden hat! Du sollst unserer Opferfahrer und Anführer sein. Schon zu lange hast du im Dunkel gelegen.’

³⁵ I refer to Tichy (2008) for an illuminating discussion of the semantics and etymology of *jyók*.

- (145) a. abhí sidhmó ajigād asya
 towards going.straight-NOM.SG go-3SG.IPF he-GEN
 śātrūn
 enemies-ACC
 ví tigména vṛṣabhéṇā pūro
 apart pungent-INS bullish-INS strongholds-ACC
 'bhet /
 split-3SG.AOR
 sām vājreṇa ~ aśṛjad vṛtrám
 together thunderbolt-INS throw-3SG.IPF Vṛtra-ACC
 índraḥ
 Indra-NOM
 prá svām matím atirac
 forth own-ACC thought-ACC increase-3SG.IPF
 chāśadānaḥ //
 become.superior-PRF.PRT.NOM
 'He went straight towards his enemies, he split the fortresses
 with his sharp bull, Indra made Vṛtra collide with his maze.
 Having become superior he increased his own thought'³⁶ (RV
 I 33.13 after Jamison p.c.)
- b. úd dyām iva ~ ít tṛṣṇājo
 towards sky-ACC like indeed thirsty-NOM
 nāthitāsó
 suppressed-NOM
 'dīdhayur dāśarājñé vṛtāsaḥ /
 look-3PL.PPF battle.of.ten.kings-LOC surrounded-NOM
 vāsiṣṭhasya stuvatā índro
 Vasiṣṭha-GEN praise-PRS.PRT.GEN Indra-NOM
 aśrod
 listen-3SG.AOR
 urūṃ tṛtsubhyo akṛṇod ulokám //
 broad-ACC Tṛtsus-DAT make-3SG.IPF land-ACC
 'The suppressed ones, who were surrounded in the battle of
 the ten kings were looking towards the sky as if they were

³⁶ Cf. Geldner (1951a: 40): 'Erfolgreich ging er auf seine Feinde los, mit dem spitzhörigen Bullen zerbrach er die Burgen. Indra ließ den Vṛtra seine Keule fühlen. In seinem Selbstvertrauen steigerte er die hohe Meinung von sich.'

thirsty. Indra listened to Vasiṣṭha who was praising him. He made the land wide for the Tr̥tsus³⁷ (RV VII 33.5)

- c. hárī nú ta indra
 bay.horses-NOM now you-GEN Indra-VOC
 vājáyantā
 contending-NOM
 ghṛtaścútaṁ svārám *asvārṣtām* /
 ghee.dripping-ACC sound-ACC sound-3DU.AOR
 ví samanā bhúmīr aprathiṣṭa ~
 apart evenly earth-NOM spread-3SG.AOR
 áramṣta párvataś cit
 be.calm-3SG.AOR mountain-NOM even
 sariṣyán //
 move-FUT.PRT.NOM
 ‘Contending for the ghee-dripping (prize), your two bay horses have sounded a sound, the earth has spread out evenly, even the mountain which was about to move has become calm’³⁸ (RV II 11.7)

- d. dadhikrāvṇo *akāriṣam* jiṣṇór
 Dadhikrāvan-GEN praise-1SG.AOR victorious-GEN
 áśvasya vājínaḥ /
 horse-GEN swift-GEN
 ‘I have praised Dadhikrāvan, the victorious swift horse’³⁹
 (Rigveda IV 39.6ab)

Other examples include (RV I 77.5, III 23.2, IV 3.16, VIII 48.1, VIII 58.11, VIII 80.10). In these cases, the Aorist Indicative forms *abhed* ‘split’, *ásrot* ‘listened’, *asvārṣtām* ‘sounded’ and *akāriṣam* ‘celebrated’ each denote a situation which is represented as terminated either prior to another situation located in the past (145a, 145b) or simply prior

³⁷ Cf. Geldner (1951b: 212): ‘In ihrer Not schauten die in der Zehnkönigsschlacht Umzingelten wie Verdurstende gen Himmel. Indra erhörte den preisenden Vasistha; er machte den Tritsu’s freie Bahn.’

³⁸ Cf. Geldner (1951a: 288): ‘Dein um den Preis laufende Falbenpaar hat sein schmalztriefendes Getöse ertönen lassen. Die Erde hat sich gleichmäßig ausgebreitet, selbst der Berg, der davonlaufen wollte, ist stillgestanden.’

³⁹ Cf. Geldner (1951a: 471): ‘Ich habe des siegesgewohnten gewinnreichen Rosses Dadhikrāvan gedacht.’

to speech time (145c, 145d). The first two stanzas represent two rare instances of properly narrative contexts in the Rigveda and refer to the heroic past of the Indo-Aryans. I take the third example to describe the scenario immediately after a violent thunderstorm, earthquake or some other disastrous natural phenomenon (cf. also Geldner 1951a: 288). The fourth example is drawn from the last stanza of a hymn in which the poet praises the steed Dadhikrāvan. In all these cases, the relevant verbal predicates may be classified as atelic process predicates. Specifically, the predicates *VÍ-BHED-* *púras* ‘split strongholds’ and *SVAR-* *svārám* ‘sound a/the sound’ fail the definite quantity criterion, *púras* representing a bare plural noun and *svārám* representing a bare mass noun. The predicates *ŚRAV-* *vásiṣṭhasya stuvatás* ‘listen to Vasiṣṭha, praising’ and *KAR^I-* *dadhikrávṇas* ‘praise Dadhikrāvan’, on the other hand, do not predicate an incremental relation between the verb and its internal argument. The main point here is that Aorist Indicative forms of various types of atelic predicates are associated with a terminative-egressive reading, imposing a temporal endpoint on the situation denoted by the predicate. These considerations suggest that Aorist Indicative forms of atelic predicates are compatible with the implicature that event time is properly included in reference time ($t_E \subset t'$), as in (145a) and (145b), and with the implicature that event time is coextensive with reference time, as in (145c) and (145d).

Interestingly, Aorist Indicative forms of atelic predicates in some cases show a markedly inchoative-ingressive reading (Delbrück 1896: 239–241, Hoffmann 1967: 157–158, fn. 102). Consider, for instance, the following examples.

- (146) a. anyó anyám ánu grbhṇāty
 another-NOM another-ACC after take-3.SG.PRS
 enor
 the.two-GEN
 apám prasargé yád ámandiṣātām /
 waters-GEN outburst-LOC when be.delighted-3DU.AOR
 ‘One of the two grasps the other from behind, when they
 have become exhilarated in the discharge of the waters’⁴⁰ (RV
 VII 103.4ab after Jamison 1993: 140)

⁴⁰ Cf. Geldner (1951b: 272): ‘Einer von zweien unterstützt den anderen [im Freudengeschrei], wenn beide über den Losbruch der Gewässer erfreut sind.’

- b. *ugrá* *iva* *praváhantaḥ*
 strong-NOM like carry.forwards-PRS.PRT.NOM
samāyamuh
 come.hither-3PL.AOR
sākām *yuktā* *vṛṣaṇo* *bíbh rato*
 together yoked-NOM bulls-NOM carry-PRS.PRT.NOM
dhúraḥ /
 loads-ACC
yác *chvasáto* *jagrasāná*
 when snort-PRS.PRT.NOM eat-PRF.PTC.NOM
árāviṣuḥ
 bellow-3.PL.AOR
śṛṇvá *eṣām* *prothátho*
 be.heard-3SG.PRS they-GEN panting-NOM
árvatām *iva* //
 horses-GEN like
 ‘Like strong (draught animals) driving (the wagon) forwards,
 the bulls who are yoked together have come hither carrying
 loads. Like the panting of horses their panting is heard when
 they have started bellowing, snorting after having eaten’⁴¹
 (RV X 94.6)
- c. *mádhvo* *vo* *náma* *márutam*
 mead-GEN you-GEN name-ACC of.the.Maruts_ACC
yajatrāḥ
 deserving.worship-VOC
prá *yajñēṣu* *śávasā* *madanti* /
 forth sacrifices-LOC forcefully drink-3PL.PRS
yé *rejáyanti* *ródasī*
 who-NOM cause.to.shake-3PL.PRS two.worlds-ACC
cid *urvī*
 even wide-ACC
pínvanti *útsam* *yád* *áyāsur*
 cause.to.flow-3PL.PRS spring-ACC when go-3PL.AOR
ugráḥ //
 strong-NOM.

⁴¹ Cf. Geldner (1951c: 296): ‘Wie starke (Zugtiere) im Fahren ziehen sie an, zusammen eingespannt, die Stiere, die die Joche tragen. Wenn sie keuchend, schlingend gebrüllt haben, so hört sich ihr Schnauben wie das der Rennpferde an.’

‘O you who are called Maruts by name, you who deserve worship, drink mead lustily at the sacrifices. They, who cause the wide heaven and earth to shake, cause the spring to flow, when they, the strong ones have set out (for battle)’⁴² (RV VII 57.1)

Other examples include (RV II 11.7, V 58.6, VII 103.1, VIII 14.10(?), IX 24.1, IX 60.2, X 94.4). The half-verse quoted in the first example belongs to the famous so-called ‘Frog hymn’ which has been variously interpreted as a rain charm and as a satire on brāhmaṇas (cf. e.g. Geldner 1951b: 271–272). Jamison (1993: 140) has recently suggested that the verse from which this example is drawn describes the breeding of frogs at the beginning of the rain season. In this context, the punctual adverbial phrase *apām prasargé* ‘at the outburst of the waters’ suggests that the Aorist Indicative form *āmandiṣātām* ‘was delighted, has become delighted’ has an inchoative-ingressive reading here, denoting a situation which partly overlaps with the situation denoted by the Present Indicative form *ānu gr̥bhṇāti* ‘grasps from behind’ in the main clause.

The second example is drawn from a hymn to the pressing-stones with which the soma juice was extracted. The pressing-stones are compared to draught animals, which after having arrived and eaten are panting and bellowing. In this context, the Aorist Indicative form *ārāviṣus* ‘bellowed, have bellowed’ denotes a situation which is partially simultaneous with the situation denoted by the Present Indicative form *śṛṇvé* ‘is heard’.

The third example belongs to a hymn to the Maruts, a group of warrior gods described as creating turmoil whenever they set out for battle. The Aorist Indicative form *áyāsus* ‘they went, have gone’ may therefore be taken to denote a situation which has started prior to evaluation time and is temporally overlapping with the situation denoted by the Present Indicative form *pínvanti* ‘cause to flow’ in the corresponding main clause. Recall from the discussion in Chapter One that the inchoative-ingressive reading was taken to presuppose that

⁴² Cf. Geldner (1951b: 233): ‘Alles, was von euch, ihr Opferwürdigen, den marutischen Namen trägt berauscht sich kräftig bei den Opfern an Met. Sie, die sogar die beiden Welten, die weiten, erzittern machen, lassen den Born quellen, wenn sie sich auf die Fahrt begeben haben.’

the event time is represented as properly included in reference time ($t_E \subset t'$) and is conceived of as a point.

The data discussed in (144), (145) and (146) indicate that Aorist Indicative forms of atelic verbal predicates are vague between a terminative-egressive and an inchoative-ingressive reading, a characteristic typical of past perfective categories, as noted in Chapter One. The evidence discussed so far in this chapter thus indicates that the Aorist Indicative represents a past perfective category ($t_E \subseteq t'$, $t' < t_0$).

Significantly, the Aorist Indicative in some cases seems to be used as the head of performative sentences. Consider, for instance, the following examples:

- (147) a. *úpa ~ im asṛkṣi vājayúr*
 to hereby emit-1SG.AOR eager.to.win-NOM
vacasyāṃ
 eloquence-ACC
 'Eager to win I hereby pour forth my eloquence'⁴³ (RV II 35.1a)
- b. *divó astoṣy ásurasya vīráir*
 heaven-GEN praise-1SG.AOR divine-GEN heroes-INS
iṣudhyā iva marúto ródasyoḥ //
 request-INS like Maruts-ACC worlds-LOC
 'With this request I praise the Maruts together with the heroes of the divine heaven in both worlds'⁴⁴ (RV I 122.1cd)
- c. *agním astoṣy ṛgmíyam*
 Agni-ACC praise-1SG.AOR to.be.praised-ACC
agním ilā yajádhyai /
 Agni-ACC praise-INS sacrifice-INF
 'I praise Agni, who is worthy of adoration, to celebrate Agni with laudation'⁴⁵ (RV VIII 39.1ab)

⁴³ Cf. Geldner (1951a: 321): 'Nach dem Siegerpreis strebend habe ich meine Beredsamkeit ergossen.'

⁴⁴ Cf., however, Geldner (1951a: 167): 'Ich habe (ihn) mit den Mannen des Asura des Himmels gepriesen; die Marut (preise ich), indem ich gleichsam auf Himmel und Erde anspruch mache.'

⁴⁵ Cf. Geldner (1951b: 352): 'Auf Agni habe ich das Lob angestimmt, auf den Preiswürdigen, um Agni mit Anruf zu verehren.'

As these examples represent the first stanza in their respective hymns, an immediate past interpretation seems unlikely. The verb phrases *ÚPA-SARJ-* *vacasyā́m* ‘let eloquence flow forth’, *STAV-* *marúto* ‘praise (the) Maruts’ and *STAV-* *agním* ‘praise Agni’ all denote a speech act and may be taken to represent process predicates. The verb *ÚPA-SARJ-* ‘let flow forth’ may be classified as an accomplishment verb, hence predicating an incremental relation between the situation and its internal argument, which in the present case is realized by the bare mass noun *vacasyā́-* ‘eloquence’, which, however, does not denote a specific quantity. The verb phrases *STAV-* *marúto* ‘praise (the) Maruts’ and *STAV-* *agním* ‘praise Agni’ are taken to be derived from the activity verb *STAV-* ‘praise’, which according to our hypothesis does not predicate an incremental relation between the verb and its internal argument. The two latter predicates may therefore be classified as atelic, even though their internal arguments denote a specific quantity.

Recall from the previous discussion that performative utterances typically presuppose that the reference time is coextensive with the event time ($t' = t_E$) and with speech time ($t' = t_s/t_0$). It is significant that the second part of this constraint is at odds with the inherent past time reference of the Aorist Indicative, so its performative reading must be regarded as strongly marked. This raises the obvious question as to how this reading can be accounted for if it is correct that the Aorist Indicative represents a past perfective category.

At this point, Delbrück's (1876: 88) suggestion that comparative data from Iranian or Greek may contribute to clarifying the meaning of the Early Vedic Aorist seems particularly appropriate, as the use of the Aorist Indicative illustrated in (147) has an exact parallel in the so-called tragic Aorist in Ancient Greek. In a recent analysis of the performative use of the Greek Aorist, Bary (2007, 2009: 121–132) rightly points out that an optimal expression of performativity would be a combination of present tense and perfective aspect which, however, does not exist in the Greek verbal system. Consequently, the Present Indicative and Aorist Indicative, as they both satisfy one of these criteria and violate the other, are equally appropriate alternatives in performative sentences in Ancient Greek. Indeed, examples of both types are attested a similar analysis could be applied to Early Vedic, where the Present Indicative and Aorist Indicative likewise are alternately used in sentences of this type. However, I have argued elsewhere that the picture in Early Vedic is considerably more complex, as all the tense/mood categories belonging to the Present and Aorist

stems (except the Imperfect, the Present and Aorist Imperative and, possibly, the Present Injunctive), appear to have performative-like uses (cf. Dahl 2008b: 8–9 et passim). Nevertheless, an approach similar to that of Bary (2007, 2009) captures the basic dynamics of the process which may be labeled ‘performative competition’ in these languages. Note, that although an analysis along these lines would corroborate the assumption that the Aorist Indicative denotes the perfective aspect, it still would have to account for the fact that the inherent past time reference of the Aorist appears to be neutralized in this type of sentences. Dahl (2008b: 20–21) attempts to solve this problem by assuming that performative sentences contain a covert punctual adverbial operator, hence presupposing that the reference time interval is conceived of as a minimal interval or point. Among other things, this hypothesis would entail that sentences of this type also presuppose that the event time is conceived of as punctual as well, given that they demand that the event time is coextensive with reference time ($t' = t_E$). This solution would be somewhat in the spirit of Delbrück (1876: 88), who appears to take examples like the ones cited in (147) to represent a special case of the inchoative-ingressive reading, so that the inherent past time reference of the Aorist would not be violated.⁴⁶ Significantly, the Imperfect is never used as the head of performative clauses in Early Vedic. As this particular clause type is very well attested in the extant corpus, we can more or less exclude the possibility that this fact reflects an accidental gap in the corpus. On the basis of the previous discussion, this distribution pattern might instead be taken to reflect the fact that the Imperfect is a past neutral category and hence is vague with regard to the temporal and aspectual constraints on performative sentences. These observations suggest that the performative reading of Aorist Indicative indicates that it represents a past perfective category, hence it seems to be a more optimal expression of performativity than the past neutral Imperfect.

In the cases discussed so far, the Aorist Indicative denotes a single, specific situation that has been started or terminated prior to speech time, apparently presupposing that the cardinality of the situation is one ($|e|=1$). This observation corroborates the general impression that

⁴⁶ Cf. Delbrück (1876: 88): ‘Nicht selten ist (worauf gelegentlich aufmerksam gemacht wurde) der Zeitunterschied so gering, dass wir das Präsens vorziehen würden. Z.B. übersetzen wir *ástoshi* im ersten Versse eines Liedes mit dem Präsens ‘ich lobe’, während es genau genommen heisst: ‘indem ich zu sprechen beginne, habe ich auch schon ein Lob ausgesprochen.’

the Aorist Indicative is a semantically more specific category than the Imperfect. Moreover, a restriction along these lines would provide a neat way of accounting for the fact that Aorist Indicative forms of atelic verbal predicates impose a temporal boundary on the situation, as this might be interpreted as a way of expressing that the situation is regarded as a single, specific unity. It was noted in Chapter One that this effect is often associated with past perfective categories, in the Slavonic languages, for example and this would seem to provide yet another piece of evidence that the Aorist Indicative is a past perfective category.

Interestingly, however, we find a few isolated examples in which Aorist Indicative forms may appear to have a multiple event reading, as illustrated by the stanzas cited in (148).

- (148) a. *ājijano* *amṛta* *mártyeṣv* *ām̐*
 cause.to.exist-2SG.AOR immortal-VOC mortals-LOC to
ṛtasya *dhármann* *amṛtasya*
 order-GEN ordinance-ACC ambrosia-GEN
cāruṇaḥ /
 esteemed-GEN
sádā ~ *asaro* *vájam* *ácchā*
 always run.off-2SG.AOR prize-ACC towards
sániṣyadat //
 rush.intensely-PRS.PRT.NOM
 'O immortal among mortals, according to the ordinance of
 the order you have caused (the draught) of the esteemed
 ambrosia to come into existence. You have always run off
 rushing intensely towards the prize'⁴⁷ (RV IX 110.4)
- b. *índraṃ* *vardhantu* *no*
 Indra-ACC strengthen-3PL.PRS.IMP we-GEN
gíra
 songs-NOM
índraṃ *sutása* *índavaḥ* /
 Indra-ACC extracted-NOM drops-NOM
índre *haviṣmatir* *víso*
 Indra-LOC offering.oblation-NOM clans-NOM
arāṇiṣuḥ //
 be.pleased-3PL.AOR

⁴⁷ Cf. Geldner (1951c: 116): 'Du Unsterblicher unter den Sterblichen hast nach der rechten Vorschrift (den Trunk) des Angenehmen Göttertranks hervorgebracht. Immerdar bist du eilend nach dem Preis gelaufen.'

‘Our songs shall strengthen Indra, the extracted juices (shall strengthen Indra. The clans that offer oblations have become pleased by Indra’⁴⁸ (RV VIII 13.16)

The Aorist Indicative form *asaras* ‘you have run off’ in (148a) is modified by the adverb *sādā* ‘always’ and hence may be interpreted as denoting a habitually recurring situation in the past. Although the Aorist form *arāṇiṣus* ‘they have been pleased’ is not modified by an explicit iterative or universal modifier adverb, the context renders a habitual reading likely. These examples could be taken to show that the Early Vedic Aorist Indicative is marginally compatible with a habitual reading, something which would seem to provide critical evidence against the hypothesis that it denotes a past perfective category. Recall from the discussion in Chapter One that the habitual reading is typically associated with past imperfective or neutral categories and that past perfective categories seem to be generally, though not universally, incompatible with this reading. As the example cited in (148a) appears to be quite isolated in the Early Vedic corpus and, moreover, the passage cited in (148b) may be interpreted as an instance of the inchoative-ingressive reading, these examples can hardly count as compelling evidence against the hypothesis that the Aorist Indicative represents a past perfective category. At present I leave open the possibility that the Aorist Indicative is in fact marginally compatible with a multiple event reading, although the evidence for this assumption is not very strong. If that assumption is correct, it would in fact constitute yet another functional correspondence between the Early Vedic Aorist Indicative and the Ancient Greek Aorist. For in Ancient Greek, the Aorist Indicative is occasionally used with a multiple event reading, as illustrated by the examples (39a) and (39c), repeated here for convenience:

- (39) a. πολλάκις ἐθαύμασα τίσι ποτὲ λόγοις
 many.times wonder-AOR what PTC arguments
 Ἀθηναίους ἔπεισαν
 Athenians persuade-AOR

⁴⁸ Cf. Geldner (1951b: 311): ‘Den Indra sollen unsere Lobreden gedeihen machen, den Indra die ausgepressten Säfte. An Indra haben die opferbringenden Clane ihre Freude.’

οἱ γραψάμενοι Σωκράτην ὥς ἄξιος εἶη
 who having.accused Socrates that worthy be-SBJ
 θανάτου τῇ πόλει.
 death the city

‘Many times I have wondered by what arguments those who have accused Socrates persuaded the Athenians that he was worthy of death for the sake of the city’ (Xenophon Memorabilia I 1.1, after Marchant 1900)

- c. αὐτὸς γὰρ ἕκαστος βουλόμενος κορυφαῖος εἶναι
 self for everyone wishing leader be
 γνώμησί τε νικᾶν
 opinions and win
 εἰς ἔχθρα μεγάλα ἀλλήλοισι ἀπικνέονται,
 into quarrels great each.other get.into-PRS
 ἐξ ὧν στάσεις
 out.of which party.strives
 ἐγγίνονται, ἐκ δὲ τῶν στασίων φόνος;
 arise-PRS out.of and the party.strives bloodshed
 ἐκ δὲ τοῦ
 out.of and the
 φόνου ἀπέβη ἐς μοναρχίην
 bloodshed end-AOR in monarchy

‘For as everyone wants himself to be leader and his own opinions to prevail, people get into quarrels with each other, from which party strives arise and from the partystrives bloodshed (arises) and from the bloodshed it (usually) ends in monarchy (Herodotos Historiae III 82.3, after Rijksbaron 2002: 32)

The various types of evidence discussed in the course of this section indicate that the Early Vedic Aorist Indicative represents a past perfective category and strongly tends to assume a single event reading. A tentative formalization of its semantic properties is given in (149) below.

$$(149) \quad ||\text{PAST}||[\lambda P.\lambda t'.\exists e(t_e(e)\subseteq t' \wedge |e|=1 (\sim|e|\geq 1) \wedge P(e) = T)]$$

This formal representation is intended to express that the Early Vedic Aorist Indicative denotes past time, perfective aspect and typically presupposes that the cardinality of the situation is one, but that it is

also marginally compatible with the presupposition that the cardinality of the situation is more than one ($(\sim|e|\geq 1)$).

4.2 *The Non-Indicative Modal Categories of the Aorist Paradigm*

This section examines the semantic properties of the non-indicative modal categories of the Aorist Paradigm. Just like the Present Paradigm, the Aorist Paradigm has four modal categories in addition to the Indicative, namely the Subjunctive, the Optative, the Imperative and the Injunctive. As the modal categories of the Aorist generally seem to have essentially the same modal semantics as the corresponding categories of the Present, the following discussion will be mainly concerned with their aspectual semantics. We will place particular emphasis on the similarities and differences between, on the one hand, the modal categories and the Aorist Indicative and, on the other, each of the modal categories and the corresponding categories of the Present Stem.

It was noted in Chapter Three that the Early Vedic Present Subjunctive expresses future probability. The following examples illustrate that the Aorist Subjunctive may be used with exactly the same meaning.

- (150) a. *yán na índro jujuṣé*
 what-ACC we-GEN Indra-NOM become.pleased-3SG.PRF
yác ca váṣṭi
 what-ACC and want-3SG.PRS
tán no mahán karati
 that-ACC we-DAT great-NOM make-3SG.AOR.SBJ
śuṣmy á cit /
 strong-NOM to also
 ‘What of ours Indra enjoys and what he wants, that the great, strong one will make for us as well’⁴⁹ (RV IV 22.1ab)
- b. *giráv ápsa ná yodhiṣat /*
 mountain-LOC chest-ACC like fight-3SG.AOR.SBJ
yás te śatrutvám ācaké //
 who-NOM you-GEN enmity-ACC desire-3SG.PRF

⁴⁹ Cf. Geldner (1951a: 447): ‘Was Indra von uns gern hat und was er wünscht, dass soll der Große, Mutige von uns bestellen.’

‘He who has been desiring enmity with you will fight as if (battering) the chest against the mountain’⁵⁰ (RV VIII 45.5bc)

In these cases, the immediate context suggests that the Aorist Subjunctive forms *karati* ‘will make’ and *yodhiṣat* ‘will fight’ denote situations which are expected to take place in the future, given what is known about the god Indra whom all the above verses praise. In the first example, this expectation reflects the *quid pro quo* principle underlying the Vedic sacrifice which presupposes that gods and men derive a mutual benefit from fulfilling their sacrificial duties. A god acting rationally will therefore requite his human followers in proportion to what they sacrifice to him, so that they continue being generous to him. In the second example, the expectation reflects the belief that the god Indra is invincible. Anyone who might wish to attempt to challenge him may be safely expected to fail. As briefly discussed in Chapters One and Three, an expectation along these lines may be analyzed in terms of universal quantification over the highest ranked set of epistemically accessible possible worlds.

Turning now to a more detailed examination of the aspectual properties of the Aorist Subjunctive, we may first note that, as a rule, Aorist Subjunctive forms of telic verbal predicates have a sequential reading. Consider, for instance, the following examples:

- (151) a. utá syá no dívā matír
 and this-NOM we-GEN day-INS thought-NOM
 áditir ūtyā gamat /
 Aditi-NOM help-INS come-3SG.AOR.SBJ
 sá śámṭāti máyas karad
 she-NOM beneficial-ACC delight-ACC
 ápa sṛidhaḥ //
 make-3.SG.AOR.SBJ away enemies-ACC
 ‘And this is our thought by day: Aditi will come with help.
 She will provide beneficial refreshment and ward off the
 enemies’⁵¹ (RV VIII 18.7)

⁵⁰ Cf. Geldner (1951a: 321): ‘Wie mit der Brust gegen den Berg will kämpfen, wer deine Gegnerschaft wünscht.’

⁵¹ Cf. Geldner (1951b: 318): ‘Und dies ist unser Gedanke bei Tag: Aditi soll uns mit Beistand kommen. Sie soll uns beglückende Freude schaffen, und fern die Fehlschläge (halten).’

- b. *agnís* *tigména* *śocíṣā*
 Agni-NOM sharp-INS flame-INS
yāsad *vísvaṃ* *ny* *àtrīṇam* /
 drive-3SG.AOR.SBJ every-ACC into Atri-ACC
agnír *no* *vanate* *rayím* //
 Agni-NOM we-DAT win-3SG.AOR.SBJ wealth-ACC
 ‘With a sharp flame Agni will attack every Atri. Agni will win
 wealth for us’⁵² (RV VI 16.28)
- c. *śrávad* *íd* *dhávam* *úpa* *ca*
 hear-3SG.AOR.SBJ indeed call-ACC to and
stāvāno
 be.praised-PRS.PRT.NOM
rāsad *vājāṃ* *úpa mahó*
 give-3.SG.AOR.SBJ prizes-ACC to great-ACC
grṇānāḥ //
 be.celebrated-PRS.PRT.NOM
 ‘Indeed, he shall listen to the invocation. Being praised he
 shall give great prizes, the celebrated one’⁵³ (RV VI 50.6cd)

Other examples include (RV I 1.2, I 30.8, III 13.1, V 31.11, V 36.1, VII 16.2, VII 88.3, VIII 1.15, VIII 40.10). In the first and second examples, the situations denoted by the Aorist Subjunctive forms *gamat* ‘will come’, *yāsat* ‘will drive’ and *śrávat* ‘he will hear’ are temporally and causally prior to the situations denoted by *karat* ‘will make’, *vanate* ‘will win’ and *rāsat* ‘he will give’, respectively. Specifically, the goddess Aditi may first be expected to come and then to provide refreshment and remove the enemies, Agni may first be expected to attack (and defeat) every Atri and then to win wealth, and Indra shall first listen to the invocation and then, having been praised, give great prizes to his followers. These examples illustrate that Aorist Subjunctive forms of telic predicates tend to have a completive-sequential reading ($t_E \subset t'$).

Aorist Subjunctive forms of atelic verbal predicates show a slightly different set of readings. In some cases, forms of this type have an inchoative-ingressive reading. Consider, for instance, the following examples:

⁵² Cf. Geldner (1951b: 111): ‘Agni soll mit scharfer Flamme jeden Atrin überfallen, Agni soll uns Besitz gewinnen.’

⁵³ Cf. Geldner (1951a: 152): ‘Er höre auf den Ruf, und besungen sende er große Belohnungen, der Gefeierte.’

- (152) a. *agne* *ṛṭīye* *sāvane* *hí*
 Agni-VOC third-LOC soma.pressing-LOC for
kāniṣaḥ
 be.pleased-3.SG.AOR.SBJ
puroḷāsaṃ *sahasah* *sūnav* *āhutam* /
 oblation-ACC strength-GEN son-VOC offered-ACC
 ‘For, Agni, at the third pressing (of soma) you will be
 pleased with the offered oblation, O son of strength’⁵⁴ (RV
 III 28.5ab)
- b. *utá* *u nv* *āsyā* *jóṣam* *ām̐*
 and now it-GEN pleasure-ACC to
índraḥ *sutāsya* *gómataḥ* /
 Indra-NOM potion-GEN milk.blended-GEN
prātár *hótā* *iva* *matsati* //
 at.daybreak hotar-NOM like be.inebriated-3SG.AOR.SBJ
 ‘And now Indra will get inebriated by as much as he wants
 of the milk-blended potion as hotar at daybreak’⁵⁵ (RV VIII
 94.6)

Other possible examples include (RV I 186.1, V 46.1, V 54.6, VI 44.16, VIII 81.5, X 17.5, X 176.2). In the first example, the punctual adverbial phrase *ṛṭīye sāvane* ‘at the third soma-pressing’ suggests that Aorist Subjunctive form *kāniṣas* ‘you will be pleased’ has an inchoative-ingressive meaning. The sentence expresses that the state referred to by the verb *KAN*^l ‘be pleased’ is expected to begin at the time specified by the adverbial phrase and to last for an indefinite time afterwards. In the second example, the punctual adverb *prātár* ‘at daybreak’ likewise indicates that the Aorist Subjunctive form *matsati* ‘he will be drunk’ has an inchoative-ingressive meaning. Within the framework adhered to in this work, the fact that a given grammatical category shows an inchoative-ingressive reading presupposes that it is compatible with the aspectual relation ‘reference time properly includes event time’ ($t_E \sqsubset t$) and that the event time is conceived of as a point.

Although Aorist Subjunctive forms of atelic verbal predicates generally tend to assume an inchoative-ingressive reading, forms of this

⁵⁴ Cf. Geldner (1951a: 361–362): ‘Agni, so möchtest du bei der dritten Spende den geopfertem Reiskuchen genehmigen, du Sohn der Stärke.’

⁵⁵ Cf. Geldner (1951b: 420): ‘Und nun soll sich Indra an diesem ausgepreßten, milchgemischtem (Soma) nach Gutdünken am Morgen wie der Hotṛ ergötzen.’

type in a few cases appear to have a sequential interpretation. Take the following passages, for instance:

- (153) a. *nūnām devébhya ví hí dhāti*
 now gods-DAT apart for place-3SG.AOR.SBJ
rátnam
 wealth-ACC
áthā ~ ábhajad
 and.then cause.to.partake-3SG.PRS.INJ
vītíhotraṁ svastáu //
 eager.to.sacrifice-ACC prosperity-LOC
 'For now he will distribute wealth to the gods and then give him who is eager to sacrifice a share in prosperity'⁵⁶ (RV II 38.1cd)
- b. *pā indra prátibhṛtasya mádhvaḥ*
 drink-2SG.AOR.SBJ Indra-VOC offered-GEN sweet-GEN
sám ándhasā mamadaḥ
 together juice-INS be.inebriated-2SG.PRF.SBJ
prṣṭhyèna //
 coming.from.the.heights-INS
 'O Indra, you shall drink of the sweet (juice) offered (to you). (Then) you will have become inebriated by the juice that comes from the mountains'⁵⁷ (RV IV 20.4cd)

Other possible examples include (RV I 10.8, II 16.7, II 38.1, X 27.7). In the first example, the conjunction *átha* 'and then' indicates that the situation denoted by the Present Injunctive form *ábhajad* 'give a share' is temporally posterior to the situation denoted by the Aorist Subjunctive form *dhāti* 'will place'. In the second example, the situation expressed by the Aorist Subjunctive forms *pās* 'you will drink' is temporally and causally prior to the situation denoted by the Perfect Subjunctive form *mamadas* 'you will have become inebriated'. The underlying predicates may both be classified as atelic, *VÍ-DHĀ-rátnam* 'distribute wealth' having a bare mass noun as its internal argument and *PĀ- prátibhṛtasya mádhvas* 'drink (of) offered sweet

⁵⁶ Cf. Geldner (1951a: 325): 'Denn jetzt verteilt er den Göttern sein Kleinod, und dem Opfereifrigen gewährte er Anteil am Glück.'

⁵⁷ Cf. Geldner (1951a: 445): 'Trink, Indra, von dem angebotenen Süßtrank, berausche dich mit an dem blumigen Saft!'

(juice)’ having an internal argument denoting an indefinite quantity. Note that the form *pās* in the third example can either represent a Subjunctive or an Injunctive form. I follow Hoffmann (1967: 112) who takes the form to be a Subjunctive, but it should be admitted that the evidence provided by this example is not of the strongest possible kind. Nevertheless, the examples in (153) provide some evidence that Aorist Subjunctive forms of atelic verbal predicates are compatible with a terminative-egressive reading, which in some cases gives rise to a sequential reading ($t_E \subset t'$).

The fact that Aorist Subjunctive forms of atelic verbal predicates are compatible with an inchoative-ingressive as well as a terminative-egressive reading, whereas corresponding forms of telic predicates tend to assume a completive-sequential reading, may be taken as an indication that the aspectual properties of the Aorist Subjunctive are essentially similar to those of the Aorist Indicative. The Aorist Subjunctive may thus be taken to denote the perfective aspect ($t_E \subseteq t'$) and future probability. Observe that all the Aorist Subjunctive forms in examples (150) through (153) denote a single, specific situation which is expected to occur after speech time. This is significant, as there are apparently no unambiguous examples of Aorist Subjunctive forms modified by iterative or universal temporal adverbs in the Rigveda. A possible example is given below.

- (154) *sá* *no* *viśvāhā* *sukrātūr*
 he-NOM we-DAT at.all.times skilful-NOM.SG
 ādityāḥ *supāthā* *karat /*
 Āditya-NOM good.roads-ACC make-3SG.AOR.SBJ
 ‘The skilful Āditya will always make good roads for us’⁵⁸ (RV I 25.12ab)

In this case, the universal adverbial modifier *viśvāhā* ‘at all times’ could be taken to modify the Aorist Subjunctive form *karat* ‘he will make’, as presupposed by the translations of Geldner (1951) and Witzel-Gotō (2007). However, this adverb could equally well be taken to modify the adjective *sukrātus* ‘skilful’ as it seems to do elsewhere (cf. e.g. RV X 37.7, X 53.11). This point is of considerable importance, as the Aorist Indicative was argued to be only marginally compatible

⁵⁸ Cf. Geldner (1951a: 27): ‘Dieser umsichtige Sohn der Aditi möge uns jederseits gute Wege bereiten.’ Witzel and Gotō (2007: 47) translate the passage as follows: ‘Dieser sehr Geisteskräftige soll uns jederseits als Āditya gute Wege schaffen.’

with a multiple event reading. Taken together, these distributional facts may be taken as an indication that the Aorist is generally, though perhaps not universally, restricted to a single event reading, presupposing that the cardinality of the situation is one ($|e|=1$). To guard against excluding potentially important evidence, example (154) is taken at face value and assume that it reflects the fact that the Aorist Subjunctive generally tends to denote a single, specific situation but is also marginally compatible with a multiple event reading. Recall from the discussion in Chapter Three that the iterative-habitual reading typically implies that the reference time is represented as coextensive with event time ($t'=t_E$). A formal representation of the semantic properties of the Aorist Subjunctive as reflected by the data discussed here is given in (153) below:

- (154) $[_{MP} \forall w \in W' \subset W [_{TP} ||FUT|| [[\lambda P. \lambda t'. \exists e(t_E(e) \subseteq t' \wedge |e|=1 (\sim |e| \geq 1) \wedge P(e) = T)]]]^w]$

Turning now to the Aorist Optative, it should be noted from the outset that forms of this type are rather uncommon in Early Vedic. I noted in Chapter Three that the Early Vedic Present Optative expresses that a given situation represents a possible state of affairs. The following examples illustrate that the Aorist Optative also has this meaning:

- (155) a. *yušmākaṃ devīr āvasā sanema*
 You-GEN goddesses-VOC help-INS win-1PL.AOR.OPT
sahasrīṇaṃ ca śatīnaṃ ca
 thousandfold-ACC and hundredfold-ACC and
vājam //
 booty-ACC
 'O goddesses, with your help we may win thousandfold and hundredfold booty'⁵⁹ (RV I 124.13cd)
- b. *priyósriyasya vṛṣabhásya retíno*
 loving.cows-GEN bull-GEN abounding.in.seed-GEN
grhám gamema ~ áśvinā
 house-ACC come-1PL.AOR.OPT Áśvins-VOC
tád uśmasi //
 that-ACC want-1.PL.PRS

⁵⁹ Cf. Geldner (1951a: 173): 'Mit eurer Hilfe, ihr Göttinnen, möchten wir tausendfaltigen und hundertfaltigen Lohn verdienen.'

‘O Ásvins, may we come to the house of the bull who loves cows and abounds in seed. That is it we want’⁶⁰ (RV X 40.11cd)

In these examples, the Aorist Optative forms *sanema* ‘we may win’ and *gamema* ‘we may come’ may be taken to express that the situations denoted by the predicates are conceived of as possible.⁶¹ The instrumental-marked noun *ávasā* ‘with help’ in the first example may be taken to express a necessary condition which must be fulfilled for the situation denoted by the predicate *SANⁱ- vājam* ‘win booty’ to take place. In the second example the Aorist Optative form *gamema* ‘we may come’ expresses a wish of the speaker, as indicated by the following Present Indicative form *uśmasi* ‘we want’.

The second example is illustrative from another perspective as well, because scholars like Delbrück (e.g. 1871: 11–17, 25–30, 1896: 369–373) take the notion of a ‘wish’ as basic in their definition of the Early Vedic Optative and derive its other uses from this notion. Although a full-scale evaluation of Delbrück’s theory of modality is beyond the scope of this work it may be useful to consider briefly how our theory would account for the relationship between the reading under which the Optative denotes a possibility and the reading under which it expresses a wish of the speaker, which is often labeled ‘cupitive’. From the discussion in Chapter Three it should be clear that I take the possibility reading to be primary, but the question is how it relates to the so-called cupitive reading. According to the analysis proposed earlier in this work, probability is defined in terms of existential quantification over epistemically accessible worlds, hence basically expressing that the speaker can conceive of at least one world in which the state of affairs would hold, given the intersubjectively available information contained in the Common Ground. Notions like *wish*, on the other hand, may be characterized as subjective rather than intersubjective in that they reflect a state of affairs preferred by some individual. In order to arrive at a unified account of these two readings of the Optative, we shall assume that assertive clauses have what may be characterized as a ‘world argument’ associated with the modality phrase (MP) and that this argument may have a free or bound variable reading. Under

⁶⁰ Cf. Geldner (1951c: 195): ‘Wir möchten in das Haus eines besamenden Stieres gelangen, der die Kühe lieb hat, o Ásvin. Dies wünschen wir.’

⁶¹ I refer to Lazzeroni (1987) for an illuminating discussion of the status and prehistory of Vedic Optative forms like *gamema*. Cf. also Renou (1940).

this assumption, the possibility reading may be taken to represent a free variable reading, whereas the cupitive reading could be understood as a bound variable reading where the world argument is bound by an intensional operator, such as an attitude verb like *VAS-* ‘want, wish’, as is the case in (155b). Explicit intensional operators may be taken to introduce a variable-binder which is sometimes represented as (\wedge) (cf. e.g. Chierchia and McConnell-Ginet 2000: 306), a convention I shall adopt here.⁶² In the absence of an explicit intensional operator, one may assume that the cupitive reading of the Optative is triggered by an implicit intensional operator which can also be represented as (\wedge) . This device allows us to formally distinguish the potential reading from the cupitive reading in the manner illustrated in (156). Note that the aspectual dimension has been left out of this semantic definition, as the aspectual reference of the Aorist Optative remains unestablished.

- (156) a. $[_{MP}\exists w \in W' \subset W[_{TP}\emptyset[(...)]]^w]$
 b. $\wedge[_{MP}\exists w \in W' \subset W[_{TP}\emptyset[(...)]]^w]$

According to this analysis, the cupitive reading of the Optative represents a more complex reading than the potential reading and hence may be taken to be derived rather than basic. Although this set of assumptions may seem somewhat *ad hoc*, the following discussion will show that it provides a fruitful tool for analyzing the relationship between readings associated with certain other categories which prove difficult to account for otherwise (cf. also Dahl 2009b, 2010a).⁶³

Before turning to a brief discussion of the aspectual properties of the Aorist Optative, let us note that the evidence on which the following claims are based is somewhat scantier than the evidence underpinning the previous discussion. This is so partly because Aorist Optative forms are relatively rare, as has been mentioned, and partly because most of the

⁶² Other explicit intensional operators include the relative pronoun *yá-* ‘who, which’ and relative conjunctions like *yád* ‘when, if’, *yadá* ‘when’, *yátra* ‘where, when’ and *yádi* ‘if’.

⁶³ For instance, a similar analysis could be directly applied to some of the readings traditionally associated with the Early Vedic Subjunctive, which has been taken to express probability as well as the ‘will’ of the speaker. In Chapter Five below I argue that it can also be used to clarify the relationship between some of the readings of the Early Vedic Perfect.

forms that are actually attested occur in contexts where their discourse function remains unclear, particularly because there is no obvious causal relation between the situation denoted by the Aorist Optative form and other situations referred to in the surrounding context. Keeping this in mind, we may note that Aorist Optative forms of telic verbal predicates in the appropriate type of context typically express that the situation is completed prior to another contextually salient situation, as illustrated by the following examples:

- (157) a. *ágne śakéma te vayám*
 Agni-VOC get.power-1PL.AOR.OPT you-GEN we-NOM
yámaṃ devásya vājínaḥ /
 control-INF god-GEN horses-ACC
āti dvéṣāṃsi tarema //
 over enemy-ACC subdue-1PL.PRS.OPT
 ‘O Agni, may we get power to control your horses. May we completely subdue the enemies’⁶⁴ (RV III 27.3)
- b. *ihá tvā dheyur hárayaḥ*
 here you-ACC put-3PL.AOR.OPT bay.horses-NOM
suśipra
 having.fair.lips-VOC
píbā tv àsyá súṣutasya
 drink-2SG.PRS.IMP now this-GEN well.prepared-GEN
cāroḥ //
 beloved-GEN
 ‘May the bay horses get you here, O fair-lipped one; drink now of this well-prepared, beloved (soma)!’⁶⁵ (RV III 50.2cd)

Other possible examples include (RV V 42.18, VI 13.6, VIII 62.11, X 52.5). In these examples, the Aorist Optative forms *śakéma* ‘we may get power’ and *dheyur* ‘they may place’ denote a situation which is causally and temporally prior to the situation denoted by the following Present Optative form *tarema* ‘we may subdue’ and Present Imperative form *píbā* ‘drink!’ respectively. These examples illustrate that Aorist Optative forms of telic verbal predicates are typically associated with a

⁶⁴ Cf. Geldner (1951a: 360): ‘Agni! Wir möchten imstande sein, deine, des Gottes, Siegesrosse zu lenken; wir möchten den Anfeindungen entrinnen.’

⁶⁵ Cf. Geldner (1951a: 390): ‘Hierher mögen dich die Falben bringen, du Schönlippiger. Trink doch con diesem gutgepreßten angenehmen (Soma)!’

completive-sequential reading which may be regarded as a semantically specific variant of the perfective aspect, denoting a proper inclusion relation between event time and reference time ($t_E \subset t'$).

Aorist Optative forms of atelic verbal predicates are extremely scarce in Early Vedic. In a few cases, forms of this type seem to have an inchoative-ingressive reading, as illustrated by the following examples:

- (158) a. *yás* *te* *mádaḥ* *pr̥tanāṣāl*
 which-NOM you-GEN intoxication-NOM victorious-NOM
ámṛdhra
 indefatigable-NOM
índra *tám* *na* *á* *bhara*
 Indra-VOC that-ACC we-DAT to bring-2SG.PRS.IMP
śūśuvāṁsam /
 grow-PRF.PRT.ACC
yéna *tokásya* *tánayasya*
 which-INS offspring-GEN grandchild-GEN
sātáu
 acquisition-LOC
mañśimáhi *jigīvāṁsas*
 think-1PL.AOR.OPT win-PRF.PRT.NOM
tvótāḥ //
 helped.by.you-NOM
 ‘Bring the (soma) to us, O Indra, your victorious, indefatigable intoxicating drink, by which we may come to think of ourselves as winners in the gaining of offspring and grandchildren’⁶⁶ (RV VI 19.7)
- b. *iṣiréna* *te* *mánasā* *sutásya*
 eager-INS you-GEN mind-INS extracted-GEN
bhākṣimáhi *pítryasya* ~
 have.a.share-1.PL.AOR.OPT of.the.fathers-GEN.SG
iva *rāyáḥ* /
 like wealth-GEN

⁶⁶ Cf. Geldner (1951b: 117): ‘Deinen Rausch, den Schlachtgewinner, den nicht geringen, den bring uns, Indra, mit, durch den wir glauben dürfen bei dem Gewinnen von leiblichen Samen die von dir begünstigten Sieger zu sein.’

sóma rājan prá ṇa áyũṃṣi
 Soma-VOC king-VOC forth we-GEN lives-ACC
 tārīr
 augment-3SG.AOR.INJ
 áhāni ~ iva sūryo vāsarāṇi //
 days-ACC like sun-NOM matutinal-ACC
 ‘May we with eager minds get a share in your extracted
 (juice) like in the wealth of the fathers; King Soma, prolong
 our lives like the sun prolongs the matutinal days’⁶⁷ (RV VIII
 48.7)

Other possible examples include (RV I 136.7, IV 55.1, V 41.1, X 53.4). In these cases, the Aorist Optative forms *maṃsīmáhi* ‘we may come to think of ourselves’ and *bhakṣīmáhi* ‘we may get a share’ appear to have an inchoative-ingressive reading, denoting a state which does not hold at speech time but that might possibly exist at some point after speech time. If this interpretation of these passages is correct, this would provide yet another indication that the Aorist Optative tends to be associated with a markedly perfective reading, presupposing that event time is properly included in reference time ($t' \subset t_e$). Significantly, there seems to be no unambiguous examples of Aorist Optative forms of atelic verbal predicates having a sequential reading. Nor have I found any examples where the Aorist Optative has a multiple event reading. It thus seems that the Aorist Optative forms in (157) and (158), which all have a single-event reading, are representative. As the Aorist Optative is relatively scarcely attested, the fact that it shows neither of these readings could be due to an accidental gap in the corpus. However, it might also reflect the fact that it has a somewhat different set of readings than the Aorist Indicative and the Aorist Subjunctive, something which would imply that the categories belonging to the Aorist Paradigm are not paradigmatically coherent. Since the readings associated with the Aorist Optative may be taken to represent a subset of the readings associated with the Aorist Indicative and the Aorist Subjunctive, it is unclear to what extent this conclusion is justified. This fact might instead be due to local markedness constraints that determine the distribution of Present and Aorist Optative forms in

⁶⁷ Cf. Geldner (1951b: 369): ‘Mit eifrigen Herzen wollen wir deinen Saft genießen wie den väterlichen Reichtum. König Soma, verlängere unsere Lebenszeiten wie die Sonne die morgendlichen Tage!’

contexts requiring a possibility reading and a completive-sequential interpretation. Although this suggestion remains stipulative at present, it does seem to have an advantage over the hypothesis that the aspectual properties of the Aorist Optative differ significantly from those of the other two categories, which would ultimately be based on negative evidence. A hypothesis along the latter lines would be significantly strengthened if it could be shown that the Aorist Optative is associated with one or more typologically significant readings with which the Aorist Indicative and Subjunctive are incompatible, for instance the progressive-processual reading ($t' \subset t_E$). As this does not seem to be the case, it seems preferable to regard the Aorist Optative as a perfective category with a somewhat more specialized set of discourse functions than the Aorist Indicative and Aorist Subjunctive. A tentative formalization of the semantic properties of the Aorist Optative is given in (159):

$$(159) \text{ } [_{MP} \exists w \in W' \subset W [_{TP} \emptyset [\lambda P. \lambda t'. \exists e (t_E(e) \subset t' \wedge |e|=1 \wedge P(e) = T)]]]^w]$$

This formal representation is intended to incorporate the observation that the Aorist Optative has a more specific aspectual reference than the Aorist Indicative and Subjunctive and expresses that the event time is properly included in reference time ($t_E \subset t'$) and is exclusively used to denote a single specific situation ($|e|=1$).

As regards the Aorist Imperative, it should first be noted that it occurs somewhat more frequently than the Aorist Optative. In Chapter Three above it was argued that the Imperative is restricted to directive clauses, as it is excluded from relative clauses which represent a salient type of assertive clauses.⁶⁸ It was also observed that the Early Vedic Present Imperative is used to express various types or degrees of deontic modality. The following examples illustrate that this is the case with the Aorist Imperative as well:

⁶⁸ Strictly speaking, this distributional fact merely implies that the Imperative is incompatible with explicit intensional operators, which, however, may be taken to canonically qualify propositions as being true relative to some set of propositions and are hence primarily, probably even exclusively, to be associated with assertive clauses.

- (160) a. *yákṣvā* mahé saumanasāya
 worship-2SG.AOR.IMP great-DAT benevolence-DAT
rudrām
 Rudra-ACC
námobhir devám ásuram
 salutations-INS god-ACC asura-ACC
duvasya //
 celebrate-2SG.PRS.IMP
 ‘Worship Rudra for great benevolence! Celebrate the god,
 the asura with salutations!’⁶⁹ (RV V 42.11cd)
- b. *sá* tvám śaviṣṭha
 this-NOM you-NOM strongest-VOC
vajrahasta
 mace.in.the.hand-VOC
dāśúṣe ’rvāñcam rayím ā
 pious-DAT tending.hither-ACC wealth-ACC to
kṛdhi //
 make-2.SG.AOR.IMP
 ‘O strongest one, you who have a mace in hand; bring wealth
 hither!’⁷⁰ (RV VIII 90.4cd)
- c. *táva* ~ ayám sómas tvám
 you-GEN this-NOM soma-NOM you-NOM
éhy arvāñ
 come-2SG.PRS.IMP hitherward-NOM
chaśvattamám sumánā asyá
 once.more well.disposed-NOM it-GEN
pāhi /
 drink-2SG.AOR.IMP
 ‘This soma is yours. Come hither! Drink of it once more,
 being well-disposed!’⁷¹ (RV III 35.6ab)

These examples illustrate that Aorist Imperative forms can be used to exhort a peer to perform an action of the type named by the verb

⁶⁹ Cf. Geldner (1951b: 44): ‘Erbitte den Rudra zu großem Wohlwollen, huldige dem Gott, dem Asura mit Verbeugungen.’

⁷⁰ Cf. Geldner (1951b: 413): ‘Bring, Mächtigster, mit der Keule in der Hand, dem Opferspender Reichtum ein!’

⁷¹ Cf. Geldner (1951a: 376): ‘Für dich ist dieser Soma, komm heran, zum soundsovielten Male trink wohlgenut von diesem!’

(*yákṣvā* ‘worship!’), to make a request to a god (*kṛdhi* ‘make!’) or issue an invitation to a god (*pāhi* ‘drink!’) The difference between these directive utterances is taken to be partly determined by the Modal Base and partly by the type of To-Do List the utterance concerns. For example, an important difference between the three examples cited above concerns the relative authority of the speaker and the addressee and may be taken to originate in the Modal Base. Note that the difference between the request in (160b) and the invitation in (160c) can be explained in terms of different types of To-Do Lists, the former involving the obligations of the addressee towards the speaker and the latter involving the desires of the addressee.

Turning now to the aspectual properties of the Aorist Imperative, it is significant that Aorist Imperative forms of telic predicates tend to give rise to a sequential reading in appropriate contexts, as illustrated by the following examples:

- (161) a. *etá* *te* *agna* *ucáthāni*
 these-ACC you-DAT Agni-VOC verses-ACC
 vedhó
 good-VOC
 ’vocāma *kaváye* *tá*
 speak-1PL.AOR wise-DAT these-ACC
 juṣasva /
 become.pleased-2SG.AOR.IMP
 úc *chocasva* *kṛṇuhí*
 up blaze-2SG.PRS.IMP make-2SG.PRS.IMP
 vásyaso *no*
 wealthier-ACC we-ACC
 mahó *rāyáḥ* *puruvāra* *prá*
 great-ACC riches-ACC rich.in.gifts-VOC forth
 *yandhi*⁷² //
 offer-2SG.AOR.IMP

⁷² It should be noted that the Aorist Imperative form *yandhi* ‘present!’ deviates from others belonging to the same stem type in that it is derived from the strong stem instead of the weak stem, cf. e.g. *kṛdhi* ‘make!’ *gahí* ‘come!’, *śrudhí* ‘listen!’. Insler (1972: 551–553) notes that the strong stem form has been generalized to all forms of the Indicative paradigm as well, cf. e.g. *ayamur* ‘they presented, have presented’, so that the deviating Imperative form would still seem to be derived by a regular morphosyntactic process.

‘O Agni, good one, we have spoken these verses for you. Enjoy them! Blaze up! Make us wealthier! O you who are rich in gifts, present (us) with great riches!’⁷³ (RV IV 2.20)

- b. á tú *gahi* prá tú
 to now come-2SG.AOR.IMP forth now
 drava
 hasten-2.SG.PRS.IMP
mátvā *sutāsya*
 inebriate-2SG.AOR.IMP juice-GEN
gómataḥ /
 blended.with.milk-GEN
 ‘Come hither now! Hasten now! Inebriate yourself with
 potion blended with milk’⁷⁴ (RV VIII 13.14ab)

Other examples include (RV I 14.12, I 48.11, II 11.15, VIII 60.4, VIII 82.2, X 9.9, X 14.5). In these examples, the Aorist Imperative forms *juṣasva* ‘enjoy!’ and *gahi* ‘come!’ denote situations which may be interpreted as causally and temporally prior to the situations denoted by the following Imperative forms *śocasva* ‘blaze!’ and *mátvā* ‘get drunk!’ respectively. These data indicate that Aorist Imperative forms of telic verbal predicates are associated with a completive-sequential reading ($t_E \sqsubset t'$).

There are few unambiguous examples of Aorist Imperative forms of atelic predicates in Early Vedic. The attested forms often occur in the last part of a stanza and hence provide little or no information about their aspectual properties. The following examples represent some of the few passages where Aorist Imperative forms of atelic verbal predicates are followed by other finite forms:

- (162) a. vájebhir no vájasātāv
 Vājas-INS we-ACC acquisition.of.boooty-LOC
aviḍḍhy
 help-2SG.AOR.IMP

⁷³ Cf. Geldner (1951a: 419): ‘Diese Loblieder haben wir für dich, den Weisen, du Meister Agni, gesprochen; freue dich daran! Flamme auf, mach uns wohlhabender, schenk uns große Reichtümer, du Vielbegehrter!’

⁷⁴ Cf. Geldner (1951c: 311): ‘Komm doch her, beeile dich doch, berausche dich am Milchgemischten Soma!’

ṛbhumāṁ indra citrām
 attended.by.Ṛbhus-VOC Indra-VOC bright-ACC
 ā darṣi rādhaḥ /
 to break-2SG.SBJ booty-ACC
 ‘Help us together with the Vājas in battle! O Indra, attended
 by the Ṛbhus you shall make a conspicuous booty available
 (for us)’⁷⁵ (RV I 110.9ab)

b. sá indra stómaṁvāhasām ihā
 this-NOM Indra-VOC offering.praise-GEN here
 śrudhy
 listen-2SG.AOR.IMP
 úpa svāsaram ā gahi //
 near one’s.own.place-ACC to come-2SG.AOR.IMP
 ‘O Indra, listen to those offering praise here. Come hither to
 (your) own place’⁷⁶ (RV VIII 99.1cd)

c. asmé dhehi yávamad
 we-DAT place-2SG.AOR.IMP having.grain-ACC
 gómad indra
 having.cattle-ACC Indra-VOC
 kṛdhī dhíyaṁ jaritré
 make-2SG.AOR.IMP prayer-ACC singer-DAT
 vājaratnām //
 rich.in.wealth-ACC
 ‘Bring us (abundance) of grain (and) cattle, make the prayer
 rich in wealth!’⁷⁷ (RV X 42.7cd)

Other examples include (RV VI 17.3, VIII 33.4). The Aorist Imperative form *avidḍhi* ‘help us!’ in the first example refers to a situation which is temporally and causally prior to that expressed by the following subjunctive form *darṣi* ‘you will break open’.⁷⁸ The verb phrase *AV- nas* ‘help us’ represents a process predicate derived from the activity verb

⁷⁵ Cf. Geldner (1951a: 143): ‘Steh uns mit den Vāja’s bei dem Lohngewinn bei; im Verein mit den Ṛbhu’s schlag uns, o Indra, eine ansehnliche Ehrengabe heraus!’

⁷⁶ Cf. Geldner (1951c: 426): ‘Höre, Indra, auch diesmal auf die durch Loblied (dich) anziehenden (Sänger); komm her zu Frühmesse!’

⁷⁷ Cf. Geldner (1951c: 197): ‘Bring uns Besitz von Korn und Rindern, Indra; mache dem Sänger das Gedicht reich gelohnt!’

⁷⁸ On the origin and synchronic status of the so-called imperatives in *-si*, cf. Cardona (1965) and Szemerényi (1966). Cf. also Narten (1964: 145–146) for the independent sigmatic mood forms of the verb *DAR*!- ‘burst, break open’.

AV- ‘help, favor’. This verb is underspecified with regard to the change of state feature so that predicates derived from this verb are vague between a telic and an atelic reading even when their second argument is specifically quantified, as in the present case. The locative phrase *vājasātāv* ‘in the battle’ may be taken to specify the reference time of the sentence and does not in itself constitute a temporal boundary.

In the second example, the Aorist Imperative form *śrudhi* ‘listen!’ denotes a situation which is located prior to that denoted by the Aorist Imperative form *gahi* ‘come!’ The predicate *ŚRAV-* *stómavāhasām* ‘listen to those offering praise’ may be classified as an atelic process predicate because of the genitive-marked internal argument.

In the third example, the situation denoted by the Aorist Imperative form *dhehi* ‘place!’ appears to be causally and temporally prior to that denoted by the following Aorist Imperative form *kṛdhī* ‘make!’ The predicate *DHĀ-* *asmé yávamad gómad* ‘give us (abundance) of grain (and) cattle’ is atelic, as its internal arguments consist of two bare abstract nouns. These data indicate that Aorist Imperative forms of atelic verbal predicates are associated with a completive-sequential reading ($t_E \subset t'$).

The data in (162) indicate the Aorist Imperative seemingly is used to represent a situation denoted by an atelic predicate as temporally bounded. Given what has been said about the other categories belonging to the Aorist Paradigm, it is therefore tempting to suggest that the Aorist Imperative typically denotes a single, specific situation. Yet we do find cases where the Aorist Imperative is modified by iterative or universal quantifier adverbs, as illustrated by the examples in (163):

- (163) a. *nṛvād* *vaso* *sádam* *íd*
 having.men-ACC good-VOC always indeed
dhehy *asmé*
 place-2SG.AOR.IMP us-DAT
bhūri *tokāya*
 much-ACC offspring-DAT
tānayāya *paśvāḥ* /
 belonging.to.one’s.own.family-DAT cattle-ACC
 ‘Always bring us (abundance) of men, O good one, (and)
 much cattle for the progeny of our family!’⁷⁹ (RV VI 1.12ab)

⁷⁹ Cf. Geldner (1951b: 93): ‘Verleih uns, du Guter, immerdar (Besitz) von Mannen, viel Vieh für den leiblichen Samen!’

- b. *yugé-yuge* *vidathyàṃ*
 generation.by.generation-LOC wise-ACC
grṇádbhyo
 praise-PRS.PRT.DAT
'gne *rayīm* *yaśásam*
 Agni-VOC wealth-ACC glory-ACC
dhehi *návyasīm /*
 place-2SG.AOR.IMP new-ACC
 'O Agni, bring wisdom, wealth and new glory to those who
 praise (you), generation after generation!⁸⁰ (RV VI 8.5ab)

Other examples include (RV I 106.5, IV 31.12, X 93.1). In these cases, the adverbs *sádam* 'always' and *yugé-yuge* 'generation after generation' indicate that the Aorist Imperative form *dhehi* 'place!' has a multiple event reading. These data indicate that the Aorist Imperative, like the Aorist Indicative and Subjunctive but unlike the Aorist Optative, is compatible with the presupposition that the cardinality of the situation is more than one ($|e| > 1$) and with the implicature that reference time is coextensive with event time ($t' = t_e$). The semantic properties of the Early Vedic Aorist Imperative may be formalized in the following way:

$$(164) \text{ [DIR}_{\text{MP}} \emptyset [\text{TP} \emptyset [\lambda t'. \lambda x. \lambda \text{TDL}. \exists e (\text{TDL}(x) \subseteq e \wedge t_e(e) \subseteq t' \wedge |e| \geq 1)]]]] }$$

Recall from Chapter Three that this formal representation is intended to capture the intuition that the Imperative is restricted to directive clauses (DIR) and that it involves adding a situation to the To-Do-List (TDL) of a salient discourse referent (x) which then is included in the TDL. It also expresses that the Aorist Imperative denotes the perfective aspect ($t_e \subseteq t'$) and is compatible with the implicature that the cardinality of the situation is one or more ($|e| \geq 1$).

Finally, we may now review the semantic properties of the Aorist Injunctive. It was noted in Chapter Four that the Early Vedic Injunctive appears to represent a category without any temporal or modal specification and that it only contributes aspectual information, picking up its temporal and modal reference from the immediate context. The

⁸⁰ Cf. Geldner (1951b: 100): 'Verschaffe den Sängern in jedem Menschenalter einen in Weisheit tüchtigen (Mann), o Agni, und Ansehen bringenden neuen Reichtum!'

various readings of the Aorist Injunctive may thus be expected to be constrained by its aspectual specification only, so that it would seem to provide particularly important evidence about the aspectual properties of the Aorist Stem.

It was noted in Chapter Three that Present Injunctive forms are used in assertive as well as directive clauses. The following examples illustrate that the same applies to Aorist Injunctive forms:

- (165) a. *prāñco* *madanty* *ukṣāṇo*
 eastwards be.satisfied-3PL.PRS. bulls-NOM
ajuryā
 unageing-NOM
devā *devānām* *ānu* *hí* *vratā*
 gods-NOM gods-GEN after for ordinances-ACC
gúh //
 come-3PL.AOR.INJ
 ‘The unageing bulls that tend eastwards are satisfied, for the gods are following the ordinances of the gods’⁸¹ (RV III 7.7cd)
- b. *etád* *gha ~* *íd* *utá* *vīryām*
 this-ACC PTC indeed and heroic.deed-ACC
índra *cakārtha* *páum̐syam* /
 Indra-NOM make-2SG.PRF manly.deed-ACC
striyaṃ *yád* *durhaṇāyúvaṃ*
 woman-ACC when malicious-ACC
vád̐hīr *duhitāraṃ* *diváh* //
 strike-2SG.AOR.INJ daughter-ACC heaven-GEN
 ‘Indeed, Indra, you also accomplished the heroic deed, the manly deed, when you defeated the malicious woman, the daughter of heaven’⁸² (RV IV 30.8)
- c. *á* *yāhi* *suṣumā* *hí* *ta*
 to drive-2SG.PRS.IMP extract-1PL,PRF for you-DAT
índra *sómaṃ* *píbā* *imám* /
 Indra-VOC soma-ACC drink-2.SG.PRS.IMP this-ACC

⁸¹ Cf. Geldner (1951a: 345): ‘Ostwärts gerichtet freuen sich die alterlosen Stiere, denn die Götter kommen die Gebote der Götter nach.’

⁸² Cf. Geldner (1951a: 458): ‘Auch diese Heldentat und Mannestat hast du, Indra, fürwahr getan, daß du das mißgünstige Weib, die Tochter des Himmels, schlugst.’

á ~ idám barhīḥ sado
 to this-ACC sacrificial.grass-ACC sit-2SG.AOR.INJ
 máma //
 I-GEN

‘Come hither, for we have extracted soma for you. O Indra,
 drink it! Sit down on this sacrificial grass of mine!’⁸³ (RV
 VIII 17.1)

d. má no agne ’vīrate
 don’t we-ACC Agni-VOC childlessness-DAT
 párá dā
 away give-2SG.AOR.INJ
 durvāsasé ’mataye má no asyái /
 ill.clad-DAT need-DAT don’t we-ACC this-DAT
 má naḥ kṣudhé má rakṣāsa
 don’t we-ACC hunger-DAT don’t evil.spirit-DAT
 ṛtāvo
 just-VOC
 má no dáme má vāna á
 don’t we-ACC home-LOC don’t wood-LOC to
 juhūrthāḥ //
 lead astray-2SG.AOR.INJ

‘O Agni, don’t abandon us to childlessness, don’t abandon
 us to ill-clad poverty, don’t abandon us to hunger, don’t
 abandon us to an evil spirit! Don’t lead us astray at home or
 in the wood!’⁸⁴ (RV VII 1.19)

These examples illustrate that Aorist Injunctive forms are used in
 assertive clauses with a present (165a) or past (165b) time reference, in
 positive directive clauses (165c) and in prohibitive clauses (165d). The
 scope of the present discussion is limited to the aspectually conditioned
 readings of the Aorist Injunctive. A more detailed discussion of its
 various discourse functions is found in Hoffmann (1967: 45–73, 160–
 264, cf. also Kiparsky 2005: 219–225).

⁸³ Cf. Geldner (1951b: 316): ‘Komm, denn wir haben dir Soma gepresst, Indra, trink ihn, setz dich auf mein Barhis hier!’

⁸⁴ Cf. Geldner (1951b: 181): ‘Gib uns nicht dem Mangel an Söhnen preis, Agni, nicht dieser Geistigen Armut, die in schlechten Kleidern geht, nicht uns dem Hunger noch dem bösen Geiste, du Wahrhafter! Nicht sollst du uns zu Hause (und) im Walde auf Abwege bringen!’

As regards the aspectual reference of the Aorist Injunctive, the example in (165d) represents a convenient point of departure. The Aorist Injunctive is characteristically used in prohibitive clauses to exhort the addressee to abstain from performing an action which has not yet begun at speech time. According to Hoffmann (1967), this canonical discourse function of the prohibitive or ‘preventive’ Aorist Injunctive is motivated by the fact that it denotes the perfective aspect and this view is now generally accepted (cf., however, Tichy 1997: 606–609). The examples in (166) provide further illustrations of the preventive use of the Aorist Injunctive:

- (166) a. *púrūravo* *mā* *mṛthā* *mā* *prā*
Purūravas-VOC don’t die-2SG.AOR.INJ don’t forth
papto
fall-2SG.AOR.INJ
mā *tvā* *vṛkāso* *áśivāsa* *u*
don’t you-ACC wolves-NOM pernicious-NOM and
kṣan /
eat-3PL.AOR.INJ
‘Purūravas, do not die! Do not commit suicide! And don’t let
pernicious wolves eat you!’⁸⁵ (RV X 95.15ab)
- b. *té* *nas* *trādhvaṃ*
these-NOM we-ACC protect-2PL.PRS.IMP
tè *’vata*
these-NOM help-2PL.PRS.IMP
tá *u* *no* *ádhi* *vocata* /
these-NOM and we-ACC for speak-2PL.AOR.IMP
mā *naḥ* *patháḥ* *pítryān* *mānavád*
don’t we-ACC road-ABL fatherly-ABL of.Manu-ABL.SG
ádhi
from
dūrám *naiṣṭa* *parāvataḥ* //
far.away lead-2PL.AOR.INJ distances-ACC

⁸⁵ Cf. Geldner (1951c: 303): ‘Purūravas, du sollst nicht sterben, nicht davonlaufen; nicht sollen dich die bösen Wölfe fressen.’ Cf. also Hoffmann (1967: 45): ‘Purūravas, stirb nicht! Erstütz dich nicht! Nicht sollen dich die unholden Wölfe fressen!’ and Klein (1978: 125): ‘O Purūravas, mayest thou not die, mayest thou not commit suicide. And may unfriendly wolves not eat thee.’

‘Protect us! Help us! Speak in our favor now! And do not lead us far away from the fatherly road of Manu into distant places!’⁸⁶ (RV VIII 30.3)

- c. *mā bhema mā*
 don’t become.afraid-1PL.AOR.INJ don’t
śramiṣma
 be.exhausted-1PL.AOR.INJ
ugrāsya sakhyé tāva /
 strong-GEN friendship-LOC you-GEN
 ‘Don’t let us become afraid, don’t let us become exhausted in your friendship, that of the strong one!’⁸⁷ (RV VIII 4.7ab)
- d. *pātāti didyún nāryasya bāhvór*
 fly-3SG.PRS.SBJ missile-NOM heroic-GEN arms-LOC
mā te máno viṣvadyàg ví
 don’t you-GEN mind-NOM opposite.side-ACC apart
cārīt //
 move-3SG.AOR.INJ
 ‘When the missile shall fly in the hands of the heroic one, don’t let your mind start moving apart to the opposite side!’⁸⁸ (RV VII 25.1cd)

Other examples are abundant. A comprehensive discussion may be found in Hoffmann (1967: 45–73). In these examples, the Aorist Injunctive forms *mṛthās* ‘you die’, *paptas* ‘you fall’ and *kṣan* ‘they eat’, *naiṣṭa* ‘you lead’, *bhema* ‘we become afraid’, *śramiṣma* ‘we become exhausted’ and *cārīt* ‘he move’ all denote situations which are located after the time of the utterance. The fact that Aorist Injunctive forms invariably have a preventive meaning in prohibitive clauses strongly suggests that they are associated with a perfective meaning ($t_E \subseteq t'$). Note also that the forms *śramiṣma* ‘we become exhausted’ and *cārīt* ‘he move’ in (166c) and (166d) appear to have an inchoative-ingressive reading here, presupposing that the event time is properly included in reference time ($t_E \subset t'$) and that the event time is conceived of as a point.

⁸⁶ Cf. Geldner (1951b: 341): ‘Beschützt uns, steht uns bei und sei uns Fürsprecher; führet uns nicht vom väterlichen Wege des Manu weit ab in die Fernen!’

⁸⁷ Cf. Geldner (1951b: 289): ‘Niche wollen wir zagen, noch ermüden in deiner, des Gewaltigen Freundschaft.’

⁸⁸ Cf. Geldner (1951b: 204): ‘(Wenn) das Geschoß in den Armen des Tapferen fliegen wird, dann soll Sinn nicht nach der entgegengesetzten Seite sich abwenden.’

Recall from the discussion in Chapter Three that the prohibitive Present Injunctive tends to be used with an ‘inhibitive’ meaning, that is, to exhort the addressee to discontinue a situation which holds at speech time, but that it is also marginally compatible with a preventive meaning. This was argued to be motivated by the basic neutral character of the Present Injunctive. Prohibitive sentences, therefore, represent a context where the aspectual difference between the neutral Present Stem and the perfective Aorist Stem gives rise to different sets of discourse functions (cf. also Hoffmann 1967: 105–106).⁸⁹ Within the present framework, the fact that the neutral Present Injunctive and the perfective Aorist Injunctive have partly overlapping sets of discourse functions is motivated by their overlapping aspectual reference, as the inclusion relation denoted by the perfective aspect ($t_E \subseteq t'$) may be analyzed as a semantically specific variant of the overlap relation denoted by the neutral aspect ($t' \otimes t_E$).

As regards the use of the Aorist Injunctive in non-prohibitive sentences, a similar picture emerges. Above all, Aorist Injunctive forms of telic verbal predicates are often used to denote a single, specific situation which has been terminated prior to another situation in the same discourse context. Consider, for instance, the examples in (167):

- (167) a. *vádhiḥ* *vṛtrám* *vájreṇa* *mandasānāḥ*
 strike-3.SG.AOR.INJ *Vṛtra*-ACC mace-INS drunk-NOM
sárann *ápo* *jávasā*
 run.off-3PL.AOR.INJ waters-NOM quickness-INS
hatávṛṣṇiḥ //
 having.a.slain.lord-NOM
 ‘Drunk, he struck *Vṛtra* with the mace. The waters ran off quickly as their lord had been slain’⁹⁰ (RV IV 17.3cd)
- b. *jániṣṭhā* *ugráḥ* *sáhase*
 be.born-2SG.AOR.INJ strong-NOM power-DAT
turáya
 excelling-DAT

⁸⁹ Cf., however, Tichy (1997: 606–609), who proposes an alternative account of the use of the Injunctive in prohibitive sentences.

⁹⁰ Cf. Geldner (1951a: 438): ‘Er erschlug berauscht den *Vṛtra* mit der Keule; die Gewässer liefen in Eile davon, als ihr Bulle erschlagen war.’

mandrá ójiṣṭho bahulābhimānaḥ /
 agreeable-NOM strongest-NOM desiring.much-NOM
 ávardhann índraṃ marútaś cid átra
 strengthen-3PL.IPF Indra-ACC Maruts-NOM even then
 mātá yád vīráṃ dadhánad
 mother-NOM when hero-ACC make.run-3SG.PRF.SBJ
 dhániṣṭhā //

best.runner-NOM

‘You were born strong for excellent power, agreeable, most powerful, desiring much. Even the Maruts strengthened Indra, when the mother, the best runner, made the hero run’⁹¹
 (RV X 73.1)

Other examples include (RV I 33.4, I 71.4, I 174.2, II 14.3, II 20.8, IV 37.2). In these cases, the situations denoted by the Aorist Injunctive forms *vádhit* ‘he strike’ and *jániṣṭhās* ‘you be born’ are causally and temporally prior to the situations denoted by the following Aorist Injunctive form *sáran* ‘they run off’ and Imperfect form *ávardhan* ‘strengthened, were strengthening’ respectively. In the first case, the adjective *hatávṛṣṇīs* ‘having their lord killed’ indicates that the situations are conceived of as being causally dependent. Similarly, in the second example, the strengthening of Indra by the Maruts presupposes that he has been born. Examples like these show that Aorist Indicative forms of telic verbal predicates typically denote a single, specific situation which has been completed prior to another contextually salient situation, hence yielding a completive-sequential interpretation ($t_E \sqsubset t'$).

Aorist Injunctive forms of atelic predicates, on the other hand, are associated with two distinct sets of readings. Firstly, forms of this type are used to denote a single specific situation which is terminated prior to another contextually salient situation, as illustrated by the following examples:

- (168) a. táva krátvā táva tád
 you-GEN insight-INS you-GEN then
 daṃśánābhir
 marvelous.skills-INS

⁹¹ Cf. Geldner (1951c: 252): ‘Du bist zu überlegener Macht geboren, der Gewaltige, Beliebte, Gewaltigste von reichlichem Selbstgefühl. Die Marut sogar stärkten dabei den Indra, als die Mutter den Helden laufen lehrte als die beste Lehrmeisterin.’

āmāsu pakvām śācyā ní
 raw-LOC cooked-ACC kindness-INS down
dīdhaḥ /
 place-2SG.AOR.INJ
 áurnor dúra usríyābhyo ví dṛlḥā ~
 veil-2SG.IPF doors-ACC red-DAT apart firm-ACC
 úd ūrvād gā asṛjo
 up reservoir-ABL cows-ACC emit-2SG.IPF
 āṅgirasvān //
 attended.by.the.Aṅgiras-NOM
 ‘By your determination, your marvelous skills and your kindness you then placed cooked (milk) in the raw (cows), attended by the Aṅgiras you opened up the firm doors for the red ones, letting the cows out of the pen’⁹² (RV VI 17.6)

- b. árādhi hótā niśādā
 succeed-3SG.AOR hotar-NOM sitting.down-INS
 yájīyān
 sacrificing.excellently-NOM
 abhí práyāṃsi súdhitāni hí
 over libations-ACC well.prepared-ACC for
khyát /
 catch.sight-3SG.AOR.INJ
 ‘The Hotar, the excellent sacrificer, has succeeded, by sitting down. For he has overlooked (the) well-prepared libations’⁹³
 (RV X 53.2ab)

Other examples include (RV I 63.7, I 72.7, IV 17.4, V 45.1, VII 25.1). In these cases, the Aorist Injunctive forms *dīdhar* ‘you place’ and *khyát* ‘he catch sight of’ each denote a situation that appears to be temporally and causally prior to the situations denoted by *áurnos* ‘veiled’ and *árādhi* ‘has succeeded’ respectively. Both the underlying predicates are atelic, as their internal arguments consist of a bare mass noun (*pakvām* ‘cooked (milk)’) and a bare plural count noun (*práyāṃsi súdhitāni* ‘well-prepared libations’). Note that the particle *hí* ‘for’ is

⁹² Cf. Geldner (1951b: 113): ‘Durch deine Umsicht und Meisterschaft hast du mit Kunst die gekochte (Milch) in die rohen (Kühe) gelegt. Du schlossest den Kühen die Tore, die Festen auf und ließest von den Aṅgiras begleitet die Kühe aus der Höhle.’

⁹³ Cf. Geldner (1951c: 215): ‘Der besser opfernde Hotṛ ist mit seinem Niedersitzen glücklich zustande gekommen; so möge er denn die wohlbereiteten Opfergenüsse sich ansehen.’

taken to mark a flashback here, just as it was shown to do in example (138a) above. Again, the readings illustrated in (168) may be taken to indicate that the Aorist Injunctive is compatible with the implicature that event time is properly included in reference time ($t_E \subset t'$).

Second, Aorist Injunctive forms of atelic predicates occasionally appear to assume an inchoative-ingressive reading. Consider, for instance, the following examples:

- (169) a. amā ~ iva naḥ suhavā ā hí
 home like we-ACC well.invoked-VOC to for
 gántana
 come-2PL.AOR.INJ
 ní barhíṣi sadatanā
 down sacrificial.grass-LOC sit-3PL.AOR.INJ
rāṇiṣṭana /
 be.happy-2PL.AOR.INJ
 áthā mandasva
 and.then inebriate-2SG.PRS.IMP
 jujuṣāṇó ándhasas
 become.pleased-PRF.PRT.NOM juice-GEN
 tvāṣṭar devébhir jánibhiḥ
 Tvaṣṭar-VOC gods-INS wives-INS
 sumádgaṇaḥ //
 together.with.the.company-NOM
 'For you come to us as you come home, O well invoked ones.
 You sit down on the sacrificial grass, you become happy. And
 then, O Tvaṣṭar, let yourself become intoxicated, enjoying
 the soma juice together with the gods and their wives!'⁹⁴ (RV
 II 36.3)
- b. tvám ha tyád indra codīḥ
 you-NOM PTC then Indra-VOC impel-2SG.AOR.INJ
 sákhā
 friend-NOM
 vṛtrám yád vajrin
 Vṛtra-ACC when holding.a.mace-VOC
 vṛṣakarmann ubhnāḥ /
 doing.manly.deeds-VOC kill-3SG.PRS.INJ

⁹⁴ Cf. Geldner (1951a: 323): 'So kommt denn zu uns wie nach Hause, ihr leicht zu Errufende; setzt euch auf das Barhis, seid fröhlich! Und berausche du dich gern am Trank, o Tvaṣṭr, mit dem lieben Gefolge der Götter und ihre Frauen.'

yád dha śūra vṛṣamaṇaḥ parācáir
 when PTC hero-VOC courageous-VOC away
 ví dásyūmr yónāv ákṛto
 apart Dasyus-ACC home-LOC cut-2SG.AOR
 vṛthāśāt //
 easily.conquering-NOM

‘O Indra, as is well known you (our) friend started impelling (us) then, when you killed Vṛtra, O mace-holder whose deeds are manly, when you, O courageous hero, you cut apart the Dasyus in (their) abode, easily conquering, (driving them) away’⁹⁵ (RV I 63.4)

c. yā ta ūtír avamā
 which-NOM you-GEN help-NOM next-NOM
 yā paramā
 which-NOM most.distant-NOM
 yā madhyamā indra
 which-NOM middlemost-NOM Indra-VOC
 śuṣminn āsti /
 vigorous-VOC be-3SG.PRS
 tābhīr ū śú vṛtrahátye
 these-INS and well slaying.of.Vṛtra-LOC
 ’vīr na
 help-2SG.AOR.INJ we-ACC
 ebhís ca vājair mahān na
 these-INS and booties-INS great-NOM we-ACC
 ugra //
 strong-VOC

‘The aid of yours which is nearest, which is furthest, which is middlemost, O powerful Indra, with those you began to aid us well in the battle against Vṛtra and as a mighty one (you aided) us with these booties, O strong one.’⁹⁶ (RV VI 25.1)

⁹⁵ Cf. Geldner (1951a: 82–83): ‘Du, Indra, hast da als Verbündeter Mut gemacht, als du tatengewaltiger Keulenträger den Vṛtra bändigtest, als du bullenmutiger Held in der Ferne die Dasyu’s in ihrem Neste zerhiebst, mühelos siegend.’

⁹⁶ Cf. Geldner (1951b: 124): ‘Was deine nächste Hilfe, deine fernste, deine mittlere ist, du ungestümer Indra, mit denen steh uns doch ja in der Feindeschlacht bei und mit diesen Erfolgen groß (steh) uns (bei), Gewaltiger!’ The present translation is mainly based on Klein (1985a: 231): ‘Which aid of thine is the nearest, which the furthest, which the middlemost, o powerful Indra, with those aid us well in the battle against the obstacle. And as a great one (aid) us with these booties, o powerful.’

Other possible examples include (RV VI 26.1, VII 25.4). In these cases, the Aorist Injunctive forms *rāṇiṣṭana* ‘you become happy’, *codis* ‘you impel’ and *avīs* ‘you help’ may be plausibly interpreted as focusing the entry into the situation denoted by the verb. In the first example, the immediately following Perfect Participle form *jujuṣāṇās* ‘enjoying’ indicates that the Aorist Injunctive form *rāṇiṣṭana* ‘you become happy’ has an inchoative-ingressive reading. The verbs *RAṆ-* ‘be happy’ and *JOṢ-* ‘become pleased’ appear to have almost exactly the same lexical meaning and it is tempting to suggest that they differ with regard to their aspectually relevant semantic properties. As *RAṆ-* has no less than three Present Stems in Early Vedic, whereas *JOṢ-* has a Root Aorist Stem but no Present Stem, it is reasonable to assume that *RAṆ-* represents a state verb and *JOṢ-* an achievement verb. Recall from the discussion in Chapter Two, that two or more synonymous or quasi-synonymous verbs which differ in their aspectually relevant lexical entailments often appear to form a suppletive paradigm. It is tempting to assume that the two verbs under discussion represent yet another suppletive pair of verbs.

In the second and third examples, on the other hand, the fact that the immediately following context appears to refer to two of Indra’s mythical deeds may be taken to suggest that the Aorist Injunctive forms *codis* ‘you impel’ and *avīs* ‘you help’ express that the situations started at that particular time in the mythical past and still hold at the time of the utterance. In (169c) an interpretation along these lines is also suggested by the locative noun phrase *vṛtrahátye* ‘in the battle against Vṛtra’.

At this point, the critical reader might object that the form *rāṇiṣṭana* could also be regarded as an Imperative, as second person plural forms of the Injunctive are synchronically indistinguishable from corresponding Imperative forms. The philological tradition holds that a substantial part of the Imperative paradigm developed from the Injunctive (cf. e.g. Macdonell 1910: 317, Hoffmann 1967: 255–256, Burrow 1972: 299–300). The heuristic value of example (169b) thus remains somewhat dubious. We could simply admit that this example is not as clear-cut as one might wish, but that it at the very least still may be taken to show that Aorist Imperative forms of atelic predicates are compatible with an inchoative-ingressive reading. As there appear to be no other examples of Aorist Imperative forms with an inchoative-ingressive reading in Early Vedic and, moreover, Aorist Imperative forms of sigmatic Aorist stems are

extremely rare, it might nevertheless be prudent to regard the form as an Injunctive, after all. However, this solution does not solve the fundamental problem that it is impossible to determine whether a given form belongs to one or the other modal category. This leaves us with the theoretically unsatisfactory situation that we must decide on a case by case basis whether a form like *rāṇiṣṭana* belongs to the Injunctive or Imperative paradigm.

The fact that the paradigms of the Injunctive and Imperative are not fully morphologically distinguished may be taken as a *prima facie* indication that, whatever the functional difference between these two categories, it is not fully grammaticalized in Early Vedic. A form like *rāṇiṣṭana* may therefore be taken to be vague between an Injunctive and an Imperative semantics. In the course of the previous discussion it has been tacitly assumed that the main semantic difference between the Injunctive and the Imperative lies in their respective compatibility with different clause types. As discussed in Chapter Three, the Injunctive is found in assertive, interrogative as well as positive and negative directive clauses, whereas the Imperative is restricted to positive directive clauses. If it is correct that this constitutes the main semantic difference between these two modal categories, we need to ask whether a form like *rāṇiṣṭana* is most consistently regarded as vague between an Injunctive and an Imperative semantics or simply as an Injunctive, which in fact ultimately amounts to the same, at least within the framework adhered to in this work. Apart from solving the heuristic issues involved in determining when a form like *rāṇiṣṭana* should be classified as an Injunctive or as an Imperative, this assumption would provide a functionally based explanation for the loss of the Injunctive as a separate grammatical category in the later stages of the Vedic language. This system change would essentially amount to a syntactic change where Injunctive forms were gradually restricted to directive clauses. The examples in (169) may therefore be taken to indicate that the Aorist Injunctive is compatible with an inchoative-ingressive reading and hence with the implicature that event time is properly included in reference time ($t_E \subset t'$).

In the cases discussed so far, the various readings of the Aorist Injunctive apparently presuppose that it denotes a proper inclusion relation between event time and reference time ($t_E \subset t'$) and, moreover, presupposes that the cardinality of the situation is one ($|e|=1$). In the following we review some data which complete the picture. For one thing, it is

well known that first person Aorist Injunctive forms of speech act verbs occur frequently in performative sentences in Early Vedic.

- (170) a. *prá ghā nv àsya maható mahāni*
 forth indeed now he-GEN great-GEN great-ACC
satyā satyāsyā káraṇāni
 truthful-ACC truthful-GEN deeds-ACC
vocam /
 proclaim-1SG.AOR.INJ
 ‘(Hereby) I now proclaim the great deeds of the great one,
 the truthful deeds of the truthful one’⁹⁷ (RV II 15.1ab)
- b. *ácchā vo agnīm ávase*
 toward you-DAT Agni-NOM help-DAT
devām gāsi sá no
 god-ACC sing-1SG.AOR.INJ he-NOM we-DAT
vásuḥ /
 beneficent-NOM
 ‘I (hereby) sing the god Agni hither for help for you. He is
 beneficent to us’⁹⁸ (RV V 25.1ab)

Hoffmann (1967: 252–253) provides additional examples. In these cases, the Aorist Injunctive forms *vocam* ‘I call’ and *gāsi* ‘I sing’ have a performative reading. This is indicated by the fact that they represent the first verse in their respective hymns and by the temporal adverb *nú* ‘now’ in the first example. Recall from the previous discussion that performative sentences typically presuppose that the reference time is coextensive with event time ($t' = t_E$) and with evaluation time ($t' = t_0$) which is identified with speech time. The fact that the Aorist Injunctive is compatible with a performative reading indicates that it denotes the general perfective aspect ($t_E \subseteq t'$).

Finally, we may note that Aorist Injunctive forms are occasionally attested with a multiple event reading, as illustrated by the following examples:

⁹⁷ Cf. Geldner (1951a: 295): ‘Nun will ich dieses Großen große, des Wahrhaften wahrhafte Taten verkünden.’

⁹⁸ Cf. Geldner (1951b: 229): ‘Den Gott Agni will ich euch zur Gnade herbeisingen. Er ist unser Guter [Gott].’

- (171) a. *divé-dive sūryo darśatō bhūd*
 day.by.day sun-NOM visible-NOM become-3.SG.AOR.INJ
ví śādmāny urviyā sukrātur
 apart abodes-ACC wide-ACC wise-NOM
dhāt //
 place-3SG.AOR.INJ
 ‘Day by day the sun becomes visible. The wise one distributes
 the wide abodes’⁹⁹ (RV VI 30.2cd)
- b. *abhí yé śānti pṛtanāsu*
 over who-NOM be-3PL.PRS battles-LOC
dūḍhyō
 malevolent-ACC
viśvāhā śātrum ādabhúḥ //
 always enemy-ACC harm-3PL.AOR.INJ
 ‘Who conquer malevolent ones in battles (and) always defeats
 the enemy’¹⁰⁰ (RV III 16.2cd)

Other examples include (RV I 71.4, I 160.3, III 36.1, V 41.15, VI 1.5) (cf. also Hoffmann 1967: 135–140). In these examples, the iterative temporal adverb *divé-dive* ‘day by day’ in the first passage and the universal quantifier adverb *viśvāhā* in the second impose a multiple event reading on the Aorist Injunctive forms *bhūt* ‘he become’, *dhāt* ‘he place’ and *ādabhús* ‘they conquer’. Examples like these indicate that the Aorist Injunctive is compatible with the implicature that the cardinality of the situation is more than one ($|e| \geq 1$). We may therefore conclude that the Aorist Injunctive is underspecified with regard to tense and modality, that it denotes the perfective aspect and that it presupposes that the situation is one or more. The formalization in (172) is intended to incorporate these semantic properties:

$$(172) [\lambda P. \lambda t'. \exists e(t_E(e) \subseteq t' \wedge |e| \geq 1 \wedge P(e) = T)]$$

This concludes the discussion of the non-indicative modal categories of the Aorist Stem. The next section examines the semantic properties of the Aorist Participle.

⁹⁹ Cf. Geldner (1951b: 129): ‘Drum meine ich: Seine Asuramacht ist groß. Was er bestimmt hat, das vereitelt keiner. Tag für Tag wird die Sonne sichtbar. Der Wohlverständige hat die Wohnsitze weit hin verteilt.’

¹⁰⁰ Cf. Geldner (1951a: 352): ‘Welche in den Kämpfen die Überlgesinnnten überwinden (und) allezeit den Feind zu Fall bringen.’

4.3 *The Aorist Participle*

This section examines the semantic properties of the Early Vedic Aorist Participle. It should be noted from the outset that Aorist Participle forms are extremely rare in Early Vedic and that there are no participle forms of the *iṣ-*, *siṣ-* and *sa-* Aorist stem types which represent the most productive Aorist Stem types at this stage (cf. Macdonell 1910: 365–385, Narten 1964 *passim*). This could be taken as a *prima facie* indication that the Aorist Participle does not represent a productive morphosyntactic category in Early Vedic. Nevertheless, we need to establish whether it can be shown to have significantly different semantic properties to the other categories belonging to the Aorist Paradigm:

Like the Present Participle, the Aorist Participle is inherently underspecified with regard to tense and mood, being compatible with a variety of temporal and modal contexts. The following examples illustrate that Aorist Participle forms are compatible with present time reference, past time reference, future possibility and priority modality.

- (173) a. *ṛtasya* *devīḥ* *sádaso*
 order-GEN goddesses-NOM seat-ABL
budhānā
 wake-AOR.PRT.NOM
gávām *ná* *sárgā* *uśáso*
 cows-GEN like herds-NOM dawns-NOM
jarante //
 be.awake-3.PL.PRS
 ‘Having awoken from the seat of order the goddesses, the
 dawns are awake like herds of cows’¹⁰¹ (RV IV 51.8cd)
- b. *suṣvāṇáso* *vy* *ádribhiś*
 be.extracted-PRF.PRT.NOM apart stones-INS
cítānā *gór* *ádhi* *tvací* /
 appear-AOR.PRT.NOM cow-GEN on skin-LOC
íṣam asmábhyam *abhítaḥ*
 draught-ACC we-DAT around

¹⁰¹ Cf. Geldner (1951a: 482): ‘Vom Sitze der Ordnung erwacht sind die Göttinnen Uṣas’ früh munter wie die Schwärme der Kühe.’

sám asvaran vasuvídaḥ //
 together sound-3PL.IPF finding.wealth-NOM
 ‘Having been extracted by the stones, the (drops) that find
 wealth appeared on the cow’s hide (and) rustled together
 from all sides into a draught for us.’¹⁰² (RV IX 101.11)

- c. ādityáso āditayaḥ syāma
 Ādityas-VOC free.NOM be-3SG.PRS.OPT
 púr
 stronghold-NOM
 devatrā vasavo martyatrā /
 among.gods Vasus-VOC among.men
 sánema mitrāvaruṇā
 win-1PL.AOR.OPT Mitra.and.Varuṇa-VOC
sánanto
 win-AOR.PRT.NOM
 bhávema dyāvāpṛthivī
 become-1PL.PRS.OPT Heaven.and.Earth-VOC
 bhávantaḥ //
 become-PRS.PRT.NOM
 ‘O Ādityas, may we be free, a stronghold among gods, among
 men, O Vasus. O Mitra and Varuṇa, may we win, (always)
 winning. O Heaven and Earth, may we become (great),
 (always) becoming (great)¹⁰³ (RV VII 52.1)

- d. yás tvám agna inád hate
 who-NOM you-ACC Agni-VOC ignite-3SG.PRS
 yatásruk
 with.raised.ladle-NOM
 trís te ánnam kṛṇávat
 thrice you-DAT food-ACC make-3SG.PRS.SBJ
 sásminn áhan /
 this-LOC day-LOC

¹⁰² Cf. Geldner (1951c: 106): ‘Mit den Steinen ausgepreßt machen sie sich auf der Kuhhaut bemerkbar; sie rauschten uns von überall her Labsal zusammen, Gutes findend’.

¹⁰³ Cf. Geldner (1951b: 228): ‘Wir wollen schuldlos (wie) die Āditya’s sein; eine Burg (sei uns) bei Göttern, bei Menschen, ihr Vasu’s. (Diese) gewinnend, möchten wir gewinnen, Mitra und Varuṇa; wir möchten Gedeihende sein, Himmel und Erde.’

sá sú dyumnáir abhy àstu
 he-NOM well glories-INS over be-3SG.PRS.IMP

prasákṣat

prevail-AOR.PRT.NOM

táva krátvā jātavedaś
 you-GEN insight-INS Jātavedas-VOC

cikivān //

perceive-PRF-PTC.NOM

‘He who will ignite you, O Agni, with raised sacrificial ladle
 (and) thrice a day will prepare food for you, he shall revel in
 glory having prevailed, skilful by your insight, O Jātavedas!’¹⁰⁴
 (RV IV 12.1)

In the first example, the Aorist Participle form *budhānā* ‘having awoken’ refers to a situation which has been terminated immediately prior to speech time, as indicated by the Present Indicative form *jarante* ‘are awake’, which apparently has a progressive-processual reading here. In the second example the Aorist Participle form *cītānā* ‘having appeared’ denotes a situation which has been terminated prior to a time in the past, namely the event time introduced by the Imperfect form *asvaran* ‘sounded, were sounding’. Significantly, the Aorist Participle forms *sánanto* ‘winning, having won’ and *prasákṣat* ‘prevailing, having prevailed’ in the third and fourth examples denote a situation temporally overlapping with the situation denoted by the Present Imperative form *astu* ‘he shall be’ and with that denoted by the Aorist Optative form *sánema* ‘we may win’.¹⁰⁵ These data illustrate that the Aorist Participle is compatible with various types of temporal and modal contexts.

We may now turn to a discussion of the aspectual properties of the Aorist Participle. As a rule, Aorist Participle forms of telic predicates either unambiguously express that a situation has been terminated prior

¹⁰⁴ Cf. Geldner (1951a: 432): ‘Wer dich, Agni, mit bereitgehaltenem Schmalzlöffel anzündet, dir dreimal am gleichen Tage Speise bereitet, der soll fein an Ruhmesglanz als siegreicher (Meister) überlegen sein, weise durch deine Einsicht, o Jātavedas.’

¹⁰⁵ Despite the somewhat unexpected accentuation of these forms (*sáne-* instead of *sané-*), I take the forms *sánema* ‘we may win’ and *sánantas* ‘having won, winning’ to represent the Optative and Participle of the weak thematic Aorist *ásanat* ‘won, has won’. For a discussion of the thematic forms of the verb *SAN^l*, cf. Renou (1940a: 7–8) and Narten (1968: 118–119).

to the reference time of the sentence or are perfectly compatible with this interpretation. Consider, for instance, the following examples:

- (174) a. *ádha gmán̄tā ~ uśánā pr̥cchate*
 and come-AOR.PRT.ACC Uśanas-NOM ask-3SG.PRS
vām
 you-ACC
kádarthā na á gr̥hám /
 why we-GEN to house-ACC
 ‘And Uśanas asked you two who had come: “Why (have you come) to our house?”¹⁰⁶ (RV X 22.6ab)
- b. *sá jāyata prathamáh*
 he-NOM be.born-3SG.PRS.INJ first-NOM
pastyāsu
 dwellings-LOC
mahó budhné rájaso asyá
 great-GEN.SG bottom-LOC atmosphere-GEN he-GEN
yónau /
 origin-LOC
apād asīrṣá
 footless-NOM.SG headless-NOM.SG
guhámāno
 hide-AOR.PRT.NOM
ántā āyóyuvāno vṛṣabhásya
 ends-ACC.DU retract-INT.PRT.NOM bull-GEN
nīlé //
 abode-LOC
 ‘He is born as the first in the dwellings. The bottom of the great atmosphere is his place of birth. He is footless, headless, having hidden both ends, always retracting himself in the abode of the bull’¹⁰⁷ (RV IV 1.11)

¹⁰⁶ Cf. Geldner (1951c: 158): ‘Als ihr beide ankamt, da fragt euch Uśanas: “Mit welchem Anliegen (kamt ihr) in unser Haus?”’ Note that I take the Present Indicative form *pr̥cchate* ‘asks, was asking’ to be a historical present here.

¹⁰⁷ Cf., however, Geldner (1951a: 414): ‘Er ward zuerst in den Flüssen geboren, im Grunde des großen im Schoße dieses Dunkelraums, ohne Füße, ohne Kopf, seine beiden Enden versteckend im Neste des Stieres, (die Glieder) einziehend.’ Cf. also Hoffmann (1967: 175): ‘Er (Agni) wird geboren als erster in den Häusern, auf dem Grunde des großen Raumes, an dessen (des Himmels) Heimstätte, fußlos, hauptlos, die beiden Enden verbergend, (die Glieder) einziehend, im Neste des Stieres

Other examples include (RV I 122.11, IV 2.14, IV 5.15, IV 12.2, V 8.2, VII 69.5, X 32.1). In the first example, the Aorist Participle form *gmántā* ‘having come’ denotes a situation which has been terminated prior to the event time of the situation denoted by the Present Indicative form *pr̥chate* ‘asks, is asking’. The verbal predicate *GAM-* ‘come’ may be classified as telic, as its internal argument has dual number and hence is specifically quantified.

The second example represents a similar case. The verbal predicate *GOH-* *ántā* ‘hide both ends’ may be classified as telic and the adjectives *apād* ‘footless’ and *asīrṣā* ‘headless’ qualify the state resulting from the completion of the situation denoted by that predicate. Both these examples minimally presuppose that the Aorist Participle is compatible with the implicature that event time is properly included in reference time ($t_E \subset t'$).

Aorist Participle forms of atelic verbal predicates are extremely rare in Early Vedic. In a few cases, forms of this type appear to denote a situation temporally overlapping with the situation denoted by the main verb, as illustrated by the following examples:

- (175) a. *ā ródasī* *viśvapísaḥ*
 to heaven.and.earth-ACC all.adorned-NOM
piśānāḥ
 adorn-AOR.PRT.NOM
samānām añjy añjate śubhé
 same-ACC ointment-ACC anoint-3PL.PRS shine-INF
kám //
 PTC
 ‘(Having begun) adorning heaven and earth, the all-adorned ones put on the same color in order to shine’¹⁰⁸ (RV VII 57.3cd)
- b. *vijéhamānaḥ* *paraśúr ná*
 open.the.mouth-PRS.PRT.NOM axe-NOM like
jihvām
 tongue-ACC

(= des Himmels).’ Schaefer (1994: 170–171) points out that the intensive participle *āyóyuvānas* ‘retracting himself’ may be taken to have an iterative-habitual interpretation here.

¹⁰⁸ Cf. Geldner (1951b: 233): ‘Allgeschmückt, Himmel und Erde schmückend, legen sie sich die gleiche Farbe auf, um zu prangen.’

dravír ná drāvayati dāru
 melter-NOM like melt-3SG.PRS wood-ACC
dhákṣat //
 burn-AOR.PRT.NOM
 ‘Opening the mouth his tongue (is) like an axe, like a melter he
 melts (it) (having begun) burning wood’¹⁰⁹ (RV VI 3.4cd)

Other possible examples include (RV IV 2.15, VI 49.11, VI 64.3, VII 98.2, VIII 92.1). In the first example, the Aorist Participle form *piśānās* ‘having adorned’ denotes a situation which overlaps temporally with the situation denoted by the main verb *āñjate* ‘anoint’. The second example is slightly less compelling, as the Aorist Participle form *dākṣad* ‘having burned, burning’ may either be taken to denote a situation temporally overlapping with the situation denoted by the Present Indicative form *drāvayati* ‘melting’ or to denote a situation which is located prior to that situation, as the burning may be understood as causally anterior to the melting. The predicate *DAH- dāru* ‘burn wood’ may be classified as atelic, as its internal argument consists of a bare mass noun. As indicated by the translation of the passages in (176), this reading is taken to represent a special case of the inchoative-ingressive reading ($t_E \sqsubset t'$).

Finally, Aorist Participle forms of atelic verbal predicates in some cases appear to denote a situation which has been terminated prior to the situation denoted by the main verb, as illustrated by the following examples:

- (176) a. manuṣvād indra sávanam
 of.men Indra-VOC potion-ACC
 juṣāṇáh
 become.pleased-AOR.PRT.NOM
 píbā sómaṁ śásvate vīryāya /
 drink-2SG.PRS.IMP soma-ACC full-DAT vigor-DAT
 ‘Having become pleased with the potion of men (before), O
 Indra, drink soma to (attain) full vigor’¹¹⁰ (RV III 32.5ab)

¹⁰⁹ Cf. Geldner (1951b: 95): ‘Die Zunge bleckend wie das (blinkende) Beil, schmelzt er es wie ein Schmelzer, wenn er das Holz verbrennt.’

¹¹⁰ Cf. Geldner (1951a: 371): ‘Wie bei Manu der Trankspende dich erfreuend trink, Indra, den Soma zu voller Kraft.’

- b. ṛténa ~ ádrim vy àsan
 divine.law-INS rock-ACC apart throw-3PL.AOR.INJ
bhidántaḥ
 split-AOR.PRT.NOM
 sám áṅgiraso navanta góbhiḥ /
 together Aṅgiras-NOM low-3PL.PRS.INJ cows-INS
 ‘According to divine law they scattered the rock, having
 destroyed it. The Aṅgiras lowed together with the cows’¹¹¹
 (RV IV 3.11ab)

Other possible examples include (RV I 92.12, III 44.1). In these cases, the Aorist Participle forms *juṣāṇás* ‘having enjoyed’ and *bhidántas* ‘having split’ apparently denote a situation which is temporally and causally prior to the situations denoted by the Present Imperative form *píbā* ‘drink!’ and the Aorist Injunctive form *asan* ‘they throw’ respectively. The predicate *JOŠ- sávanam* ‘enjoy potion’ in the first example may be classified as atelic because its internal argument consists of the mass noun *sávanam* ‘potion’, whereas the predicate *BHED-* ‘split’ is atelic because it has no surface object. These data indicate that the Aorist Participle tends to express that the event time is properly included in reference time ($t_E \subset t'$). Note also that examples (173) through (176) indicate that the Aorist Participle is typically used to denote a single, specific situation. There seems to be no unambiguous examples of Aorist Participle forms with a multiple event reading and it is therefore likely that it was primarily used to express that the cardinality of the situation is one ($|e|=1$). The semantic properties of the Aorist Participle may be formally represented as follows.

$$(177) [\lambda P.\lambda t'.\exists e(t_E(e) \subset t' \wedge |e|=1 \wedge P(e) = T)]$$

If this formal representation accurately captures the semantic properties of the Aorist Participle, it would seem to denote a more specific variant of the perfective aspect than most of the other categories belonging to the Aorist Paradigm, having essentially the same aspectual semantics as the Aorist Optative.

¹¹¹ Cf. Geldner (1951a: 421): ‘Von Rechts wegen haben sie spaltend den Fels gesprengt; die Aṅgiras brüllten zusammen mit den Kühen.’

4.4 *The Aspectual Reference of the Aorist Stem*

In Sections 4.1 through 4.3, have examined the various readings associated with the Aorist Indicative, the non-indicative modal categories of the Aorist and the Aorist Participle. The data discussed in these sections indicate that the various inflectional categories belonging to the Aorist Stem have two or more out of three aspectual readings in common, a completive-sequential reading, an inchoative-ingressive reading and an iterative-habitual reading. Within the framework developed in Chapter One, the fact that the Aorist Paradigm shows exactly this set of readings may be accounted for by assuming that it denotes the perfective aspect and that each of these readings represent a contextually determined variant of the basic aspectual relation denoted by the perfective aspect, as schematically represented in Figure 4.2 below:

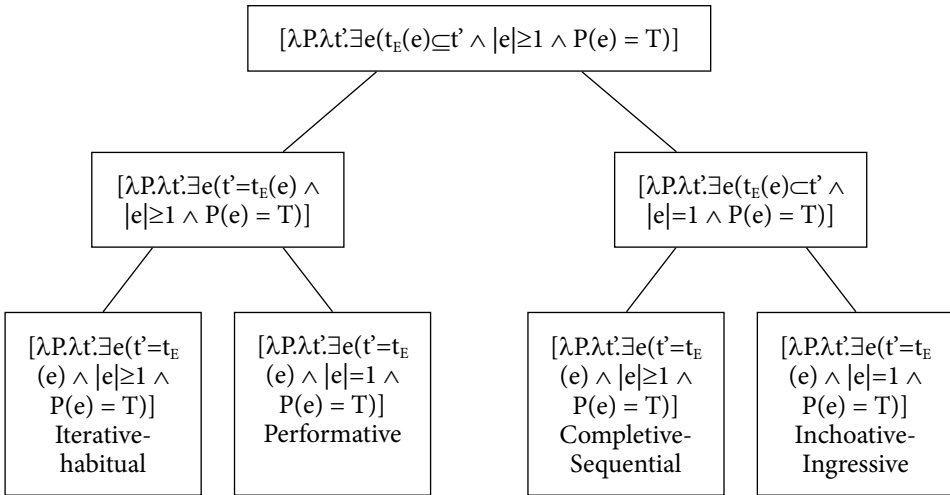


Figure 4.2: The readings associated with the Early Vedic Aorist Paradigm

CHAPTER FIVE

THE PERFECT SYSTEM

This chapter examines the semantic properties of the various inflectional categories belonging to the Perfect Paradigm. The present discussion of the Early Vedic Perfect relies heavily upon recent publications such as Di Giovine (1990), Kiparsky (1998: 33–36), Kümmel (2000), Mumm (2002: 172–182), García Ramón (2004). Section 5.1 discusses the various readings of the Early Vedic Perfect Indicative. Section 5.2 examines the readings of the so-called Pluperfect. Sections 5.3 and 5.4 are devoted to a discussion of the non-indicative forms of the Perfect Stem and Perfect Participle. Finally, Section 5.5 summarizes our findings.

It was noted in the Introductory Chapter that non-indicative modal forms of the Perfect Paradigm are less frequent than corresponding forms of the Aorist Paradigm. Again, an informal count based on Macdonell (1910) reveals that the relative type frequency of Subjunctive, Optative, Injunctive and 2nd Person Imperative forms is somewhat more than three to one (510/156).¹ This may be taken as a *prima facie* indication that the various non-indicative modal categories of the Perfect Paradigm represent semantically more specific or ‘marked’ alternatives to the corresponding morphological categories of the Present and Aorist Paradigms.

5.1 *The Perfect Indicative*

This section examines the temporal and aspectual properties of the Early Vedic Perfect Indicative. Adhering to the structure followed in the preceding chapters, we will first discuss its temporal readings and then go on to its aspectual readings. However, it should be noted

¹ Note that the relative frequency of each of these categories yields a somewhat different picture: Aorist vs. Perfect Subjunctive 175/78 (isolated *sa*-Subjunctives not included), Aorist vs. Perfect Optative 87/54 (Precatives not included), Aorist vs. Perfect Injunctive 205/14 and Aorist vs. Perfect 2nd singular Imperative 27/10.

from the outset that the temporal and aspectual readings of the Perfect Indicative are considerably more inter-related than those of the Present Indicative, Imperfect and Aorist Indicative, as some temporal readings of the Perfect Indicative appear to be limited to certain aspectual classes of verbs. Nevertheless we think that it will be fruitful to consider these two semantic dimensions separately as was done in the previous chapters.

The Perfect Indicative has a flexible temporal reference. For one thing, Perfect Indicative forms may be used with present time reference, as illustrated by the following examples:

- (178) a. *á* *nūnám* *aśvínor* *ṛṣi*
 to now Áśvins-GEN sage-NOM
 stómaṃ *ciketa* *vāmāyā* /
 praise-ACC perceive-3SG.PRF lovely-INS
 ‘Now the sage has invented a praise for the Áśvins with lovely
 (speech)’² (RV VIII 9.7ab)

- b. *mimyaḥkṣa* *yéṣu* *rodasī* *nú*
 be.situated-3SG.PRF who-LOC Rodasī-NOM now
 devī
 gods-NOM
 síṣakti *pūṣā*
 follow-3SG.PRS Pūṣan-NOM
 abhyardhayájvā /
 receiving.separate.sacrifices -NOM
 śrutvá *hávaṃ* *maruto* *yád* *dha*
 hear-ABS call-ACC Maruts-VOC when indeed
 yāthá
 go-2PL.PRS
 bhúmā *rejante* *ádhvani* *právikte* //
 regions-NOM tremble-3PL.PRS road-LOC entered-LOC
 ‘O Maruts, among whom the goddess Rodasī is now situated,
 Pūṣan who receives separate sacrifices now follows (you).

² Cf. Geldner (1951b: 304): ‘Der Ṛṣi beabsichtigt jetzt den Lobpreis der Aśvin mit trefflicher (Rede).’

Indeed, when you go out, having heard the call, the regions on the road entered into (by you) tremble³ (RV VI 50.5)

Other similar examples include (RV I 105.10, I 148.3, I 186.9, VI 24.3, VII 33.3, VIII 4.11, VIII 101.1). In these examples, the temporal adverbs *nūnám* ‘now’ and *nú* ‘now’ indicate that the Perfect Indicative forms *ciketa* ‘has perceived’ and *mimyakṣa* ‘is situated’ have present time reference.⁴ The fact that the Perfect Indicative is compatible with the adverb *nūnám* ‘now’ may be taken as a *prima facie* indication that it has present rather than past time reference. Recall from the previous discussion that the adverb *nūnám* ‘now’ is used to modify the Present Indicative (79), the Present Subjunctive (105b) and the Aorist Subjunctive (153a). In contrast, Aorist Indicative forms are sometimes modified by *nú* ‘now’, but never by *nūnám* ‘now’. One way of accounting for this distributional difference would be to assume that *nūnám* denotes a reference time which cannot be located earlier than the time of the utterance, that is, it presupposes that the left boundary of the reference time interval coincides with evaluation time/speech time. The adverb *nú* ‘now’, on the other hand, might be taken to have a more flexible time reference, presupposing that evaluation time is included in reference time. We may thus preliminarily conclude that the Early Vedic Perfect Indicative has present time reference ($t_0 \subseteq t'$).

As the Perfect Indicative appears to have present time reference, it comes as no surprise that it is sometimes modified by the adverb *adyá* ‘today’, as illustrated by the following examples:

- (179) a. *vayám* *te* *adyá* *rarimā* *hí* *kāmam*
 we-NOM you-DAT today grant-1PL.PRF for wish

³ Cf., however, Geldner (1951b: 152) who translates the passage as follows: ‘An die sich jetzt die Göttin Rodasī angeschlossen hat—Pūṣan gesellt sich dazu als ihr Gegenverehrer. Wenn ihr Marut den Ruf erhöret und kommet, so zittern die Länder auf eurem auserwählten Wege.’

⁴ In my translation of this passage I have implicitly taken the verbal predicate *MYAKṢ-* to be a state verb with the meaning ‘be situated’, but it should be noted that this is a controversial choice. For instance, Gotō (1987: 247), Di Giovine (1990: 320–321), Mayrhofer (1996: 385–386) and Kümmel (2000: 385) regard this verb as an achievement with the meaning ‘become part of’. I have chosen this translation of the verb to avoid the entering into a discussion of aspectual issues, which clearly may be at stake here. I do not want to lay too much stress on the lexical semantics of this verb. I will return to a discussion of the relevant aspectual issues later in this section.

uttānāhastā nāmasā upasādya
 with.extended.hands-NOM.PL homage-INS sit.down-ABS
 ‘For, having sat down, our hands extended in homage, we
 have granted you a wish today’⁵ (RV III 14.5ab)

- b. kó adyá náryo devākāma
 who-NOM today manly-NOM loving.the.gods-NOM
 uśānn índrasya sakhyām
 wish-PRS.PRT.NOM Indra-GEN friendship-ACC
jujoṣa /
 become.pleased-3SG.PRF
 ‘Which pious man enjoys Indra’s friendship by his own desire
 today’⁶ (RV IV 25.1ab)

Other similar examples include (RV IV 23.5, V 53.12, V 74.7, X 55.5). In these examples, the frame adverb *adyá* ‘today’ unambiguously specifies a hodiernal reference time, showing that the Perfect Indicative forms *rarimā* ‘we have given’ and *jujoṣa* ‘enjoys’ are compatible with this type of temporal reference. As the reference time introduced by adverbs like *adyá* ‘today’ typically includes evaluation time, cases like those cited in (179) corroborate the assumption that the Perfect Indicative has present time reference.

Furthermore, it is significant that the Early Vedic Perfect Indicative is compatible with reference times which extend through the past and include the time of the utterance, a time interval which was referred to as an extended now reference time in Chapter One. Consider the following examples.

- (180) a. sám ca tvé jagmúr gíra
 together and you-LOC come-3.SG.PRF songs-NOM
 indra pūrvír
 Indra-VOC many-NOM
 ví ca tvád yanti vibhvò
 apart and you-ABL go-3PL.PRS mighty-NOM
 manīṣāḥ /
 thoughts-NOM

⁵ Cf. Geldner (1951a: 351): ‘Wir haben dich ja heute deinen Wunsch gewährt, indem wir mit ausgestreckten Händen unter Verbeugung uns zu dir setzen.’

⁶ Cf. Geldner (1951a: 542): ‘Welcher Mannhafte, Götterliebende hat sich heute nach Wunsch der Freundschaft Indra’s zu erfreuen!’

b. tvám kútsam śuṣṇahátyeṣv
you-NOM Kutsa-ACC smittings.of.Śuṣṇa.-LOC
āvitha~
help-2SG.PRF
árandhaya 'tithigváya śámbaram /
make.subject-2SG.IPF Atithigva-DAT Śambara-ACC
mahántam cid arbudám ní
great-ACC even Arbuda-ACC down
kramiḥ padá
trample-2SG.AOR.INJ foot-INS
sanád evá dasyuhátyāya jajñiṣe //
old-ABL so enemy.smiting-DAT be.born-3SG.PRF
'You helped Kutsa in the smittings of Śuṣṇa, you made Śambara
subject to Atithigva, you even trampled down the great
Arbuda. So from olden times you have been destined for
smiting enemies'⁸ (RV I 51.6)

Other, similar examples include (RV VI 27.1, VIII 67.16, IX 99.3, X 10.4, X 76.3). In the first example the adverbs *purá* 'previously, formerly' and *nūnám* 'now' denote a reference time which includes the past and the present, seemingly representing it as an unbroken interval. In the second example, the durative ablative adverb *sanāt* 'from of old, from olden times' denotes a past time interval with a vague left boundary indicating that the situation denoted by the Perfect Indicative

⁷ Cf. Geldner (1951b: 131): ‘Auf dich vereinigen sich viele Lobreden, Indra, und von dir gehen reiche Gedanken aus. Früher und jetzt haben die Lobpreisungen der Rsi’s, die Gedichte und Gesänge um Indra gewetteifert.’

⁸ Cf. Geldner (1951a: 63): 'Du standest dem Kutsa in den Śuṣṇakämpfen bei, du lieferst dem Atithigva den Śambara aus. Den Arbuda tratest du trotz seiner Größe mit dem Fuße nieder. Vor Alters schon bist du für die Dasyuerschlagung geboren.'

form *jajñiṣe* ‘be born’ has been repeated on a regular basis during this interval which includes the time of the utterance.

Recall from the discussion in Chapter Three that the Early Vedic Present Indicative has an almost identical set of temporal readings. It is therefore tempting to conclude that the Perfect Indicative has the same basic time reference as the Present Indicative, expressing that evaluation time is included in reference time ($t_0 \subseteq t$). However, this assumption runs into the difficulty that the Perfect Indicative in some cases seems to be compatible with prehodiernal and remote past reference times. Consider for instance the following examples:

- (181) a. *adyā mamāra sá hyāḥ sám*
 today die-3SG.PRF he-NOM yesterday together
āna //
 breathe-3.SG.PRF
 ‘Today (the moon) has died. Yesterday he was still fully breathing’⁹ (RV X 55.5d)
- b. *yó na idám-idam purā prá*
 who-NOM we-DAT this.and.that-ACC previously forth
vásya
 wealth-ACC
ānināya tám u va
 lead.to-3SG.PRF he-ACC now you-GEN
stuṣe /
 praise-1SG.PRS
sákhāya índram ūtāye //
 friends-VOC Indra-ACC help-DAT
 ‘Him, who has previously brought us every wealth, I praise, Indra, to your help my friends’¹⁰ (RV VIII 21.9)
- c. *prá ghā nv àsya maható mahāni*
 forth indeed now he-GEN great-GEN great-ACC
satyā satyāsa káraṇāni
 truthful-ACC truthful-GEN deeds-ACC

⁹ Cf. Geldner (1951c: 219): ‘Heute ist er gestorben, gestern hat er noch vollständig geatmet.’ Cf. also Kümmel (2000: 96, also 370): ‘Heute ist er tot/gestorben—der hat gestern noch geatmet.’

¹⁰ Cf. Geldner (1951b: 326): ‘Der uns früher zu diesem und jenem Glück geführt hat, den preise ich, den Indra, zu eurem Beistand, Genossen.’

vocam /
 proclaim-1SG.AOR.INJ
 trikadrūkeṣv apibat sutásya ~
 trikadrūkas-LOC drink-3SG.IPF juice-GEN
 asyá máde áhim índro
 it-GEN intoxication-LOC dragon-ACC Indra
jaghāna //
 smite-3SG.PRF

‘I now proclaim the great deeds of the great one, the truthful deeds of the truthful one. He drank of the (soma) juice in the trikadrūkas. In its inebriation Indra smote the dragon’¹¹ (RV II 15.1)

Other possible examples include (RV I 161.12, II 15.9, II 20.4, II 30.4, III 36.8, VI 22.4, X 129.2). In the first two examples, the frame adverbs *hyás* ‘yesterday’ and *purá* ‘previously, formerly’ indicate that the Perfect Indicative forms *āna* ‘breathed, has breathed’ and *ānināya* ‘brought, has brought’ are compatible with definite as well as indefinite prehodiernal past reference times. In the third example, the immediate context suggests that the Perfect Indicative form *jaghāna* ‘smote, has smitten’ denotes a situation which is located in the remote, mythical past. Again it must be emphasized that we are primarily dealing with temporal reference here. For instance, although the Perfect Indicative form *jaghāna* ‘smote, has smitten’ in (181c) denotes a situation in the remote, mythical past and hence has more or less the same temporal reference as the coordinated Imperfect form *apibat* ‘drank, was drinking’, this is not to say that there is no other relevant difference between the two forms in this type of context.¹² At present, we simply disregard

¹¹ Cf. Geldner (1951a: 295): ‘Nun will ich dieses Großen große, des Wahrhaften wahrhafte Taten verkünden. Bei den Trikadrūkas trank er Soma; in dessen Rausch hat Indra den Drachen erschlagen.’

¹² It should be noted that there is a strong tendency in the scholarly literature to ascribe the perfect another discourse function than the Imperfect in cases like the one at hand. For instance, Hoffmann (1967: 160) notes that the Early Vedic Perfect Indicative, unlike the Imperfect, is never used to ‘tell’ (berichten), but that it, again unlike the Imperfect, may be used to ‘state a fact’ (konstatieren): ‘Ich finde keinen Anhalt dafür, daß das Perfekt in der Sprache des R̥gveda etwa zur berichtenden Erzählung hätte gebraucht werden können (...) Seine [Delbrücks] Belege [des ‘historischen’ Perfekts] aus dem R̥gveda zeigen aber m.E. nur den konstatierenden oder resultativen Gebrauch.’ Cf. also Kümmel (2000: 77): ‘Das Perfekt scheint dadurch zur Hervorhebung einer vergangenen Handlung als gegenwärtig wichtig, so scheint es

these differences and their possible semantic motivations. The main point here is that the Perfect Indicative, in some cases, seems to be used in contexts which apparently speak against the assumption that it has the same time reference as the Present Indicative.

Recall, however, from the discussion in Chapter Three that the Present Indicative is marginally compatible with past reference times, for instance under its past iterative-habitual reading. Further, the Present Indicative is also occasionally modified by the adverb *purá* ‘previously, formerly’, as illustrated by the examples in (87) repeated here for convenience:

- (87) a. kvà tyāni nau sakhyā
 where those-NOM we-GEN friendships-NOM
 babbhūvuḥ
 become-3PL.PRF
 sácāvahe yád avṛkām purá cit /
 associate-1.DU.PRS.MID when without.enmity formerly even
 ‘What has become of those friendly relations of ours, as we two
 even formerly associated without enmity’¹³ (RV VII 88.5ab)
- b. bhūri cakra marutaḥ pítṛyāṇy
 Many-ACC make-2.PL.PRF Maruts-VOC of.the.fathers-ACC
 ukthāni yā vaḥ śasyānte
 praises-ACC which-NOM you-DAT be.recited-3.PL.PRS
 purá cit /
 formerly even
 ‘O Maruts, you have given rise to many praises, which even
 formerly were recited for you’¹⁴ (RV VII 56.23ab)
- c. idā hí vo vidhaté rátnam
 now for you-ACC worship-PRS.PRT.DAT wealth-NOM
 ásti ~
 be-3.SG.PRS

bisweilen geradezu „feierlich“ gebraucht zu sein (...) Im Unterschied zum Imperfekt wird nur festgestellt, nicht erzählt; man könnte vielleicht mit Weinrich (1964) von „Besprechen“ versus „Erzählen“ sprechen. Diese gebrauch kann man *konstatierend* oder besser *faktisch* nennen.’

¹³ Cf. Geldner (1951b: 260): ‘Wohin ist diese Freundschaft zwischen uns gekommen, da wir früher ohne Feindschaft verkehrten?’

¹⁴ Cf. Geldner (1951b: 232): ‘Ihr habt viele väterliche Loblieder veranlaßt, die euch schon ehemals vorgetragen wurden.’

idá vīráya dāśúṣa uṣāsaḥ /
 now hero-DAT liberal-DAT Dawns-VOC
 idá víprāya járate yád ukthá
 now poet-DAT sing-3.SG.PRS when songs.of.praise-ACC
 ní śma mávate vahathā purá cit //
 to always like.me-DAT bring-2.PL.PRS formerly even
 ‘For now there is wealth for him who worships you, now for
 the liberal hero, O Dawns, now for the poet when he sings
 songs of praise. Even formerly you always brought (wealth)
 to one like me’¹⁵ (RV VI 65.4)

Examples like these provide fairly strong *prima facie* evidence in favor of the assumption that the Perfect Indicative has the same temporal reference as the Present Indicative.

Recall, however, from the previous discussion that the Present Indicative is sometimes used to denote a situation which is located after the time of the utterance, a reading which apparently is never found with the Perfect Indicative. Following on the discussion in Chapter Three and the data discussed so far in the present chapter, the picture emerges that the Perfect Indicative is restricted to contexts where the time of the utterance represents the absolute right boundary of the reference time interval, whereas the Present Indicative is not subject to any restrictions in this respect. Although it cannot be excluded that this distributional fact reflects an accidental gap in the Early Vedic corpus, a restriction along these lines seems to be well motivated by the aspectual properties of the Early Vedic Perfect Indicative, to which I shall turn shortly. This constitutes a potentially strong argument against the assumption that these two categories have exactly the same time reference. Specifically, the Present Indicative might be taken to be compatible with what may be labeled a ‘retrospective’ present time reference, that is, a reference time extending from some time in the past and including speech time, as well as what may be labeled a ‘prospective’ present time reference, that is, a reference time including speech time and extending to some point in the future. The Perfect Indicative, on the other hand,

¹⁵ Cf. Geldner (1951b:167): ‘Denn jetzt ist für euch die (Zeit der) Belohnung für den Verehrer da, jetzt für den opferspendenden Mann, ihr Uṣas, jetzt für den Sprecher, wenn er in der Frühe Loblieder singt. Auch ehemals brachtet ihr meinesgleichen (etwas) ein.’

- (182) a. *bibhēda* *valāṃ* *nunudé* *vívācō*
 split-3SG.PRF Vala-ACC push-3SG.PRF fighters-ACC
 'thā abhavad *ḍamitā* *abhīkratūnām* //
 then become-3SG.IPF tamer-NOM insolent-GEN
 'He killed Vala, removed (the) enemies. Then he became the
 tamer of the insolent'¹⁶ (RV III 34.10cd)
- b. *āvartyā* *śúna* *āntrāṇi* *pece*
 poverty-INS dog-GEN entrails-ACC cook-1SG.PRS
 ná *devéṣu* *vivide* *marḍitāram* /
 not gods-LOC find-1SG.PRF one.who.shows.compassion-ACC
āpaśyaṃ *jāyām* *āmahīyamānām*
 see-1SG.IPF wife-ACC dishonored-ACC
ádhā me *śyenó* *mādhv* *ā* *jabhāra* //
 then I-DAT eagle-NOM sweet.mead-ACC to bring-3SG.PRF
 'Because of poverty I cooked the entrails of a dog. I did not
 find a compassionate one among the gods. I saw my wife
 dishonored. Then the eagle brought me sweet mead'¹⁷ (RV
 IV 18.13)
- c. *tád* *rāśabho* *nāsatyā* *sahāsram*
 then donkey-NOM Nāsatyas-VOC thousand-ACC
ājā *yamāsyā* *pradhāne* *jigāya* //
 running.match-LOC Yama-GEN contest-LOC win-3SG.PRF
 'O Nāsatyas, then a donkey surpassed a thousand in Yama's
 running match, in the contest'¹⁸ (RV I 116.2cd)

Other examples are abundant (cf. e.g. RV I 116.16, II 15.5, II 15.9, V 32.7, VIII 6.6, VIII 93.2, IX 109.14, X 23.5, X 73.7, X 89.8). In these cases, the Perfect Indicative forms *bibhēda* 'split, has split', *pece* 'cooked, has cooked' and *jigāya* 'won, has won' each denote a situation which appears to be represented as being successfully completed prior to the time of the utterance. All the relevant verbal predicates may be classified as telic, being derived from a change of state verb

¹⁶ Cf. Geldner (1951a: 375): 'Er spaltete den Vala, vertrieb die Streitenden und so der Bezwingen der sich Auflehnenen.'

¹⁷ Cf. Geldner (1951a: 443): 'Aus Not kochte ich mir die Eingeweide des Hundes, unter den Göttern fand ich keinen Erbarmer.'

¹⁸ Cf. Geldner (1951a: 153): 'Der Esel gewann das Tausend im Wettkampf des Yama um den hohen Preis, ihr Nāsatya's.'

and having a specifically quantified internal argument. Note also that the situations denoted by the Perfect Indicative forms *nunudé* ‘pushed, has pushed’ and *jabhāra* ‘brought, has brought’ seemingly also denote situations which have been successfully terminated in the past. This indicates that Perfect Indicative forms of atelic verbal predicates are also used to express that the situation was terminated prior to speech time. The passages cited in (183) provide some further examples.

- (183) a. *asyá* *pītvā* *mādānām*
 it-GEN drink-ABS intoxicating.drinks-GEN
 índro *vṛtrāṇy* *apratí /*
 Indra-NOM enemies-ACC irresistibly
 jaghāna *jaghānac* *ca* *nú //*
 smite-3SG.PRF smite-3SG.PRF.SBJ and now
 ‘Having drunk of its intoxicating drinks, Indra has irresist-
 ibly smitten enemies and will have smitten (enemies) now
 as well’¹⁹ (RV IX 23.7)
- b. *ayám* *svādúr* *ihá* *mādiṣṭha*
 this-NOM sweet-NOM here most.inebriating-NOM
 āsa
 be-3SG.PRF
 yáśya ~ *índro* *vṛtrahátye*
 which-GEN Indra-NOM slaying.of.Vṛtra-LOC
 mamáda /
 be.inebriate-3SG.PRF
 ‘This sweet (potion) here, by which Indra was inebriated in
 the battle against Vṛtra, has been most inebriating’²⁰ (RV VI
 47.2ab)

Other examples include (RV I 51.5, I 162.14, II 15.6, VI 44.14, VI 69.5, VII 98.3, X 89.2, X 95.4, X 111.6). In these and similar cases, the Perfect Indicative forms *jaghāna* ‘smote, has smitten’ and *mamáda* ‘was inebriated, has been inebriated’ imply that the situation denoted by the predicate has been terminated prior to evaluation time. The examples

¹⁹ Cf. Geldner (1951c: 25): ‘Wann Indra von dessen Rauschtranken getrunken hat, hat er die Feinde, denen keiner gewachsen war, erschlagen und wird sie noch weiter erschlagen.’

²⁰ Cf. Geldner (1951b: 144): ‘Dieser süße hier war der berauschendste, an dem sich Indra im Vṛtrakampf berauscht hat.’

in (182) and (183) may be taken to suggest that Perfect Indicative forms of telic as well as atelic predicates typically assume an existential reading, expressing that the situation has been terminated prior to reference time ($t_E < t'$), which could be taken to indicate that it denotes the anterior aspect ($t_E \leq t'$).

This impression is corroborated by other types of data as well. For example, Perfect Indicative forms are often used with a resultative meaning. Consider the following examples:

- (184) a. ádhvāryo drāvāyā tvām
 Adhvaryu-VOC make.flow-2SG.PRS.IMP you-NOM
 sómam índraḥ pipāsati /
 soma-ACC Indra-NOM be.thirsty-3SG.PRS
 úpa nūnām yuyuje vṛṣaṇā
 unto now yoke-3SG.PRF horses-ACC
 hārī á ca jagāma vṛtrahā //
 bay-ACC to and come-3SG.PRF Vṛtrakiller-NOM
 'Adhvaryu, you let the soma flow! Indra is thirsty. Now the Vṛtrakiller has yoked his two bay horses and has come hither'²¹ (RV VIII 4.11)
- b. alāyyasya paraśúr nanāśa
 Alāyiya-GEN axe-NOM disappear-3SG.PRF
 tám á pavasva deva soma /
 he-ACC hither flow-2SG.PRS.IMP god-VOC Soma-VOC
 ākhúm cid evá deva soma //
 mole-NOM like just god-VOC Soma-VOC
 'Alāyiya's axe has disappeared. O god Soma, bring it hither, that which is (hidden) like a mole, god Soma!'²² (RV IX 67.30)
- c. ayām yóniś cakṛmā yām
 this-NOM seat-NOM make-1PL.PRF which-ACC
 vayām te
 we-NOM you-DAT

²¹ Cf. Geldner (1951b: 289): 'Adhvaryu! Laß du den Soma strömen; Indra hat Durst. Jetzt hat er sein Falbenpaar, das bullengleiche, angeschirrt und ist hergekommen, der Vṛtratöter'. Kümmel's (2000: 407) translation of the two last pādas is similar: 'Angeschirrt hat jetzt seine falben Hengste und her ist gekommen der Vṛtratöter (Indra).'

²² Cf. Geldner (1951c: 57): 'Die Axt des Alāya ist verschwunden; die läutere her, Gott Soma, die wie ein Maulwurf (versteckte), Gott Soma!'

jāyā ~ iva pátya uśatī
 wife-NOM like husband-DAT wish-PRS.PRT.NOM
 suvāsāḥ /
 well.dressed-NOM
 arvācīnāḥ párivīto ní śīda ~
 favouring-NOM surrounded-NOM down sit-2SG.PRS.IMP
 ‘This receptacle which we have made for you is like a well-
 dressed wife waiting for her husband. Being favorable, take
 your seat on all sides!’²³ (RV IV 3.2a–c)

Other examples are fairly frequent (cf. e.g. RV I 82.6, I 160.4, I 164.32, III 3.5, IV 41.8, VII 92.1, X 71.6, X 79.6). In these examples, the Perfect Indicative forms *yuyuje* ‘yoked, has yoked’, *jagāma* ‘came, has come’, *nanāśa* ‘disappeared, has disappeared’ and *cakṛmā* ‘we made, have made’ may be taken to express that a state resulting from the completion of a past event holds at the time of the utterance, as indicated by the Present Indicative form of the Desiderative verb *pipāsati* ‘he wants to drink, is thirsty’ in the first example and the Present Imperative forms *śīda* ‘sit!’ and *pavasva* ‘flow!’ in the second and third example, respectively. Recall from the discussion in Chapter One that present anterior categories tend to be associated with a resultative reading, which may be analyzed as a semantically specific variant of the aspectual relation instantiated in (182) and (183), denoting an immediate adjacency relation between event time and reference time ($t_E > < t'$).

In some cases, the Perfect Indicative is used with a stative present meaning. Consider for instance the following examples:

- (185) a. ád íd dha néma indriyám
 and.right.then PTC some-NOM of.Indra-ACC
 yajanta
 sacrifice-3PL.PRS
 ád ít paktīḥ puroḷāśam
 and.right.then cooked.food-NOM rice.cake-ACC
 riricyāt /
 leave-3SG.PRF.OPT

²³ Cf. Geldner (1951a: 419): ‘Dies ist der Schoß, den wir dir bereitet haben wie das schöngleidete Weib voll Verlangen dem Gatten. Nimm (uns) zugetan Platz, rings umlegt.’

ád ít sómo ví papṛcyād
and.right.then Soma-NOM apart mix-3SG.PRF.OPT
ásuṣvīn

not.pressers-ACC

ád ij jujoṣa vṛṣabhám
and.right.then become.pleased-3SG.PRF bull-ACC
yájadhyai //

sacrifice-INF

‘And right then some sacrifice to Indra’s (name), right then the cooked food may surpass the rice cake, right then soma may discern those who do not extract, right then one is pleased to sacrifice a bull’²⁴ (RV IV 24.5)

b. mā na stenébhyo yé abhí
don’t we-ACC thieves-DAT who-NOM against
druhás padé
deceit-ABL trace-LOC

nirāmíno ripávó ’nneṣu
lurking-NOM deceitful-NOM foods-LOC

jāgrdhúḥ /

become.greedy-3PL.PRF

‘Don’t (give) us (away) to treacherous thieves, who, lurking in the trace of deceit, are in pursuit of food’²⁵ (RV II 23.16ab)

c. ádhā mitró ná súdhitah pāvako
now friend-NOM like benevolent-NOM bright-NOM
’gnír díḍāya mánuṣīṣu
Agni-NOM begin.to.shine-3SG.PRF of.men-LOC
vikṣú //

clans-LOC

‘Like a well-established contract does the pure Agni now shine among the human clans’²⁶ (RV IV 6.7cd after Klein 1985b: 114)

²⁴ Cf. Geldner (1951a: 451): ‘Dann opfern die andern dem indrischen (Namen), dann soll die Kochspeise den Reiskuchen überbieten, dann soll der Soma die Nichtpressenden (von den Pressenden) scheiden, dann beliebt man einen Stier zu opfern.’

²⁵ Cf. Geldner 1951a: 305): ‘(Gib) uns nicht den Räubern (preis), die, sich an die Spüren der Falschheit hängend, als Betrüger nach den Speisen gierig sind.’

²⁶ Cf. Geldner (1951a: 427): ‘Dessen Natur (?) sich von der Geburt nicht abhalten ließ—noch sind Vater und Mutter jemals auf der Suche (nach ihm)—Agni ist nun

- d. agnír *jāgāra* tám
 Agni-NOM awake-3SG.PRF he-ACC
 řcaḥ kāmāyante
 Řk.verses-NOM love-3PL.PRS
 'gnír *jāgāra* tám u
 Agni-NOM awake-3SG.PRF he-ACC and
 sāmāni yanti /
 Sāman-verses-NOM go-3PL.PRS
 agnír *jāgāra* tám ayám
 Agni-NOM awake-3SG.PRF he-ACC this-NOM
 sóma āha
 Soma-NOM say-3SG.PRF
 táva ~ ahám asmi sakhyé
 you-GEN I-NOM be-1SG.PRS friendship-LOC
 nyòkāḥ //
 domestic-NOM
 'Agni is wakeful, him the Řk-verses love. Agni is wakeful,
 and to him the Sāman-verses go. Agni is wakeful, to him
 this Soma says: "In your friendship I feel at home"²⁷ (RV V
 44.15)

Further examples include (RV I 51.8, I 52.6, IV 25.1, VIII 12.24, VIII 25.9, X 114.9). In these and similar cases, Perfect Indicative forms like *jujoṣa* 'are pleased', *jāgrdhúr* 'they are greedy' *dīdāya* 'shine, is shining' and *jāgāra* 'is wakeful' denote a state holding at the time of the utterance apparently without making any direct reference to a previous change of state. In Chapter Two it was noted that a number of achievement verbs do not select a regular Present Stem, but instead have a Perfect Stem with a stative present value (cf. also Kümmel 2000: 66–71). Although the verbs belonging to this group are not semantically unitary, they generally have an important semantic

unter den menschlichen Stämmen aufgeleuchtet, der Lautere, wohl aufgenommen wie ein Freund.' My translation follows Kümmel (2000: 228): 'Dessen Natur (?) von der Geburt nicht abgehalten worden ist—nicht sind Mutter und Vater gerade jetzt auf der Suche [nach ihm]—nun **leuchtet** wie der freundliche Mitra Agni, der Reine, unter den menschlichen Stämmen.' Cf. also Hettrich (1988: 475) for a discussion of this passage.

²⁷ Cf. Geldner (1951b: 49): 'Agni ist wach geblieben, ihn lieben die Řkverse: Agni ist wach geblieben, zu dem kommen die Sangesweisen. Agni ist wach geblieben, zu ihm spricht dieser Soma: In deiner Freundschaft fühle ich mich heimisch.'

feature in common, namely that they denote situations which are not typically construed as being associated with an antecedent process. The stative present reading of the Early Vedic Perfect Indicative may accordingly be regarded as a lexically conditioned variant of the resultative reading, presupposing that event time is immediately adjacent to reference time ($t_E > < t'$) and being restricted to instantaneous achievement verbs.

Some readers might object that the verbs from which the Perfect Indicative forms in (185) are derived need not represent achievement verbs at all but rather seem to have a stative meaning. In the case of *GARDH*- 'become greedy' and *JOṢ*- 'become pleased' we do in fact have an independent morphosyntactic argument in favor of the assumption that they represent achievement verbs, namely that they are also attested with a root Aorist Stem, a stem formation which is characteristic of change of state verbs, as discussed in Chapter Two. However, in the case of *JAR^I*- 'awake' and *DAY^I*- 'begin to shine' the basis for assuming that they represent achievement rather than state verbs is somewhat less firm, as they do not have a root Aorist Stem. Nevertheless, the fact that state verbs generally tend to select a root or strong thematic Present Stem and, moreover, are rarely attested in the Perfect provides some support for the assumption that the verbs *JAR^I*- 'awake' and *DAY^I*- 'begin to shine' represent achievement verbs rather than state verbs. Although this argument may seem tautological, it is not clear that this circularity is necessarily vicious. The hypothesis that these verbs represent instantaneous achievement verbs, although stipulative, provides a principled explanation for the fact that they do not have a regular Present Stem in Early Vedic. At the same time it allows one to harmonize the stative present reading of the Perfect Indicative with the existential and resultative readings, which all may be accounted for as special instantiations of the aspectual relation 'event time prior to reference time' ($t_E < t'$).

It was noted above that Perfect Indicative forms are sometimes used to denote a situation which has extended from some time in the past and still holds at the time of the utterance. It was suggested that the Perfect Indicative under this reading denotes a retrospective or extended now (XN) time interval. It remains unclear, however, how this reading is related to the aspectual relation underlying the readings discussed so far. Consider the examples in (186) (cf. also the examples in (180) above):

- (186) a. śásvad dhí vaḥ sudānava
 continuously for you-GEN munificent-VOC.
 ādityā ūtibhir vayāṃ /
 Ādityas-VOC refreshing.favours-INST we-NOM
 purā nūnām *bubhujmāhe* //
 previously now enjoy-1PL.PRF.MID
 ‘For we have continuously been enjoying ourselves with
 your refreshing favors, O munificent Ādityas, formerly (and)
 now²⁸ (RV VIII 67.16)
- b. sādā kavī sumatīm ā cake
 always seers-VOC kindness-ACC to desire-1SG.PRF
 vām
 you-GEN
 víśvā dhīyo aśvinā prāvataṃ
 all-ACC prayers-ACC Aśvins-VOC favor-2DU.PRS.INJ
 me /
 I-GEN
 ‘O you two seers, I have always endeavored to obtain your
 benevolence. O Aśvins, favor all my prayers!’²⁹ (RV I
 117.23ab)
- c. tvām vṛṣā jánānām
 you-NOM bull-NOM men-GEN
 mām̐hiṣṭha indra jajñiṣe /
 very.liberal-NOM Indra-VOC be.born-2SG.PRF
 satrá víśvā svapatyāni
 always all-ACC ensuring.good.offspring-ACC
dadhiṣe //
 possess-2SG.PRF
 ‘You were born as the most liberal bull of men. You have
 always possessed all means for ensuring good offspring’³⁰
 (RV VIII 15.10)

²⁸ Cf. Geldner (1951b: 391): ‘Denn immer wieder haben wir uns eurer Hilfen, ihr gütigen Āditya’s, einst und jetzt gefreut.’

²⁹ Cf. Geldner (1951a: 159): ‘Immerdar habe ich ich eure Huld, ihr Seher, begehrt. Fördert alle meine (frommen) Gedanken, o Aśvin!’

³⁰ Cf. Geldner (1951b: 315): ‘Du, Indra, bist als der Bulle der Völker, als der Freigebigste geboren. Du besitzt alle Mittel zu guter Nachkommenschaft vollzählig.’

The examples in (186) illustrate that the universal reading is mainly found with Perfect Indicative forms of atelic predicates, apparently denoting a continuous temporally unbounded process or state and tending to have a habitual meaning. In fact, the Perfect Indicative is far more frequently modified by existential and universal quantifier adverbs than the Imperfect or Aorist Indicative and several scholars have pointed out that the Perfect Indicative is the regular expression of habituality in the past in Early Vedic (cf. Renou 1925: 23, Kiparsky 1998: 33–35). Consider the following examples:

- (187) a. ukthá-ukthe sóma índraṃ
recitation.after.recitation-LOC Soma-NOM Indra-ACC
mamāda
inebriate-3SG.PRF
nīthé-nīthe maghāvānaṃ sutásah /
way.after.way-LOC generous-ACC juices-NOM
'In recitation after recitation Soma has inebriated Indra, in
one way after another the juices (have inebriated) the gener-
ous one'³¹ (RV VII 26.2ab)

³¹ Cf. Geldner (1951b: 205): 'Bei jedem Lobgedicht hat Soma den Indra begeistert, bei jeder Weise die Säfte den Gabenreichen.'

- b. *prá va éko mimaya*
 forth you-ACC one-NOM transgress-1SG.PRF
bhūry āgo
 often offence-ACC
yán mā pitā iva kitavām
 which-ACC me-ACC father-NOM like gambler-ACC
śaśāsā /
 chastice-2PL.PRF

‘I alone have often frustrated you by offense, because of which you have chastised me like a father (chastising) a gambling (son)’³² (RV II 29.5ab)

- c. *yadā te haryatā hārī*
 when you-GEN eager-NOM bay-NOM
vāvr̥dhāte *divé-dive /*
 growstronger-3DU.PRF day.by.day-LOC
ād it te víśvā bhūvanāni
 and.right.then you-GEN all-NOM beings-NOM
yemire //
 obey-3PL.PRF

‘While your two eager bay horses have grown stronger day by day, right then all beings have obeyed you’³³ (RV VIII 12.28)

Other examples include (RV III 36.1, VII 15.2, VII 18.24, VIII 13.7, VIII 48.9, IX 107.19). In these and similar cases, Perfect Indicative forms like *mamāda* ‘has inebriated’, *mimaya* ‘has diminished’ and *vāvr̥dhāte* ‘has grown stronger’ are modified by adverbial phrases like *ukthá-ukthe* ‘recitation after recitation’, *bhūri* ‘often’ and *divé-dive* ‘day by day’, yielding a past habitual meaning.³⁴ Examples like those

³² Cf. Geldner (1951a: 313): ‘Ich allein habe viele Sünde gegen euch gefehlt, dass ihr mich gezüchtigt habt wie der Vater (den Sohn), der dem Spiele fröhnt’. Kümmel (2000: 368, cf. also 520) translates the passage as follows: ‘Vermindert habe ich allein euch viel Unrecht, für das ihr mich wie der Vater den Spieler zurechtgewiesen habt.’

³³ Cf. Geldner (1951b: 310): ‘Als deine geliebten Falben Tag für Tag größer wurden, da erst haben sich dir alle Wesen gefügt.’

³⁴ It should be noted that an alternative analysis of the passage in (187b) is in principle possible. The word *bhūri* could be taken as an adjective meaning ‘manifold’ which modifies the noun *āgas* ‘transgression, sin’. Adjectives in the accusative neuter singular are systematically used as adverbs in Early Vedic and there is no principled way of distinguishing these two uses in cases like the one at hand, as forms of this type are vague between an adjectival and an adverbial reading. However, this ambi-

cited in (187) indicate that the Perfect Indicative is compatible with the implicature that the cardinality of the situation is more than one ($|e| \geq 1$).

Before concluding the discussion of the aspectual properties of the Perfect Indicative we need to consider briefly why the Perfect Indicative is preferred to the Aorist Indicative and Imperfect in past habitual contexts. For, this distributional pattern is apparently at odds with the claim that the Perfect Indicative has present, albeit retrospective, time reference. Recall from the above discussion, however, that the Present Indicative was also shown to be compatible with a past habitual meaning. Under the assumption that the Perfect Indicative and the Present Indicative have the retrospective present reading in common, it is tempting to link the fact that they represent the preferred expressions of the past habitual reading to the extended now interval underlying the retrospective present reading. Leaving aside the Present Indicative for the moment, it is tempting to suggest that the Perfect Indicative is obligatorily associated with an extended now (XN) interval, an assumption which finds some support in the fact that it appears to be incompatible with prospective present reference times. Moreover, this interval could in turn be interpreted as a kind of stative predication, which, given the aspectual specification of the Perfect Indicative ($t_E \leq t'$), may give rise to two basically different sets of implicatures; an existential set of readings and a universal set of readings. In the first case, the event time interval is interpreted as being located prior to reference time and the extended now interval is interpreted as denoting a state holding after the termination and/or completion of the event. In the second case, the event time interval is interpreted as being coextensive with reference time and the extended now interval is interpreted as a continuous state. A schematic representation of these two types of readings is given in Figure 5.2 below.

This representation is intended to capture the intuition that the Perfect Indicative, under its existential reading, simply implies that the event time is located prior to reference time ($t_E < t'$). This general precedence relation may be interpreted as an immediate precedence relation ($t_E > < t'$) underlying the resultative reading which presupposes

guity is not harmful in the present case, as the noun *ágas* is a cognate object of the transitive predicate *PRÁ-MAY^l-vas* 'frustrate you' and in any case has an adverb-like function here.

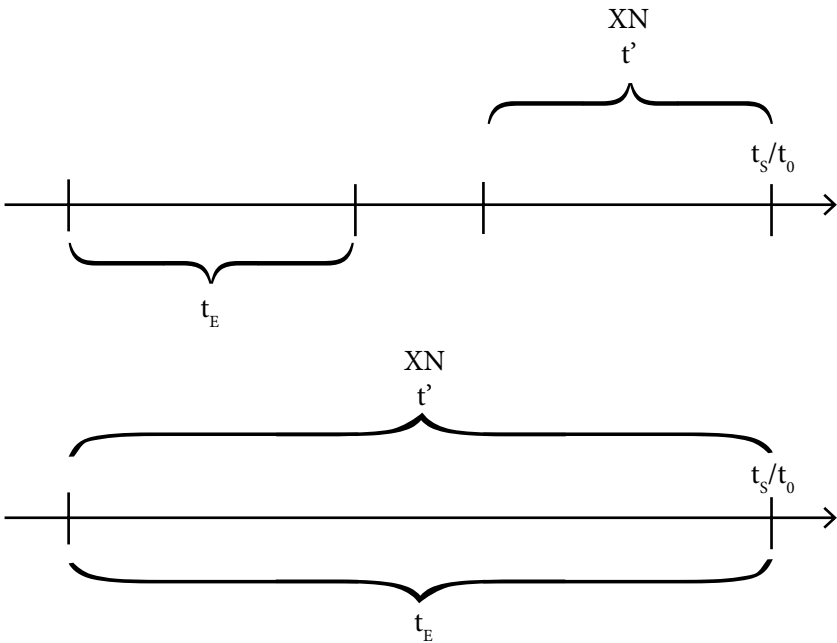


Figure 5.2: The existential and universal readings of the Perfect Indicative

that the extended now interval is interpreted as a state resulting from the completion of a previous event.

If it is correct that the extended now interval essentially represents a stative predication, we have a plausible explanation for the fact that the Perfect Indicative is preferred to the two main past tenses in contexts demanding a past habitual reading. Recall from the previous discussion that the iterative-habitual reading is taken to express that event time is coextensive with reference time ($t_E = t'$) and that the cardinality of the situation is more than one ($|e| \geq 1$). It is therefore reasonable to understand habituality in terms of a derived state holding consistently over a time interval, somewhat along the lines of Comrie (1976: 27–28) and Smith (1997: 33–34). Given that the Perfect Indicative is inherently associated with a stative extended now interval, it would seem to represent a semantically more specific and hence more optimal expression of the past habitual relation than the Imperfect and Aorist Indicative which might be taken to be under-specified in this respect.

A critical reader might object that this explanation, in particular the assumption that the reference time parameter may be interpreted

as a derived state, seems entirely *ad hoc*. However, previously in this work we have repeatedly based the analysis of certain readings on this assumption, the resultative and immediate past readings of the perfective aspect representing but two examples. Generally, it seems that an assumption along these lines provides an intuitively reasonable account of the relationship between aspectually conditioned implicatures and temporal interpretation.

In the course of the previous discussion, it has been argued that the Perfect Indicative may be plausibly regarded as a present anterior category. However, as the observant reader will have noted, this assumption runs into the difficulty that Perfect Indicative forms are marginally compatible with frame adverbs denoting a specific past reference time, as illustrated by example (181a) repeated here for convenience:

- (181) a. *adyá mamára sá hyáh sám*
 today die-3SG.PRF he-NOM yesterday together
 āna //
 breathe-3.SG.PRF
 ‘Today (the moon) has died. Yesterday he was still fully
 breathing’³⁵ (RV X 55.5d)

Note that this is the only case in which the Perfect Indicative is modified by a frame adverb with a specific past time reference. Nevertheless, it provides a serious challenge to the semantic analysis of the Perfect Indicative presented here. As will be recalled from the discussion in Chapter One, present anterior categories like the English Present Perfect are generally incompatible with adverbs like *hyás* ‘yesterday’. In the present context, this fact represents a far from trivial problem, as this constituted one of the main arguments in favor of assuming that sentences refer to three rather than two temporal parameters. It remains unclear how the example in (181a) can be accounted for within the present framework. It seems that we either must completely revise the theoretical framework or reconsider the semantic analysis of the Perfect Indicative developed so far. Both of

³⁵ Cf. Geldner (1951c: 219): ‘Heute ist er gestorben, gestern hat er noch vollständig geatmet.’ Cf. also Kümmel (2000: 96, also 370): ‘Heute ist er tot/gestorben—der hat gestern noch geatmet.’

these alternatives turn out to be less than desirable. For one thing, the discussion in this and the previous chapters has shown that the present theory provides an extremely useful set of tools for analyzing temporal and aspectual meaning and the fact that we find an isolated, though unambiguous, counterexample can hardly justify a substantial revision of that theoretical framework. A similar point could be made about the analysis of the Perfect Indicative which, indeed, seems to account for a substantial majority of its salient readings. As some of these readings are typologically significant in the sense that they discern present anterior categories from other, semantically similar categories, it is doubtful that it would be possible or even justifiable to revise the analysis of the Perfect Indicative on the basis of one principled counterexample.

One possible solution to this dilemma would be to assume that the Perfect Indicative is genuinely ambiguous between a present anterior and a simple past meaning. However, if this were correct, one would expect a larger number of clear-cut examples of the simple past reading. In spite of the fact that the example in (181a) blatantly contradicts Hoffmann's claim (1967: 160)³⁶ repeated by Kümmel (2000: 78),³⁷ that the Perfect Indicative is never used with a purely past time reference in Early Vedic, the observation made by these scholars is significant as it correctly observes that other parallel examples are extremely rare or perhaps even non-existent. It is therefore dubious whether the hypothesis that the Perfect Indicative vacillates between a present anterior and a simple past reading is tenable.

An alternative hypothesis which perhaps might be somewhat more viable would be that the example in (181a) represents a secondary development. This assumption finds some support in the findings of recent typologically oriented studies into the diachronic dimension of grammatical meaning (cf. e.g. Bybee et al. 1994: 51–105). Specifically, present anterior categories strongly tend to develop a perfective or

³⁶ Cf. Hoffmann (1967: 160): 'Es gibt, soweit ich sehe, keinen Fall, in dem das Perfekt als Bezeichnung der ferneren oder aktuellen Vergangenheit aufgefaßt werden müßte.'

³⁷ Cf. Kümmel (2000: 78): 'Es gibt jedoch keinen Fall, wo eine solcher rein präteritaler Gebrauch im älteren Vedischen angenommen werden muß, wie Hoffmann (1967: 160) gesehen hat.'

simple past meaning. From this perspective, the example under discussion could be the first indication of a grammatical change of a typologically very common type. As the hymn in which this verse is found is also attested in the Atharvaveda, it may be taken to be relatively young within the Rigvedic corpus, so that it may be taken to reflect the semantic properties of the Early Middle Vedic Perfect Indicative rather than those of the Early Vedic Perfect Indicative, as discussed in Dahl (2009b, 2010a). In any case, it is dubious whether the example in (181a) provides conclusive counterevidence against the assumption that the Early Vedic Perfect Indicative represents a present anterior category.

As discussed earlier in this chapter the Perfect Indicative is sometimes used to ‘state a fact’, that is, to highlight information which is known to the speaker and hearer, just like the Aorist Indicative and Imperfect (cf. also Delbrück 1876: 112, Hoffmann 1967: 160, Kümmel 2000: 77–78, Mumm 2002: 161, 184–185). Consider for instance the following examples:

- (188) a. *tvám hí nas tanvāḥ soma*
 you-NOM for we-GEN body-GEN Soma-VOC
gopā
 herdsman-NOM
gātre-gātre niṣasátthā nṛcákṣāḥ /
 limb.by.limb-LOC sit.down-2SG.PRF beholding.men-NOM
 ‘For, as the herdsman of our body, you have sat down in
 limb after limb’³⁸ (RV VIII 48.9ab)
- b. *ubhá hí dasrá bhiṣájā*
 both-NOM for giving.marvellous.aid-NOM healer-NOM
mayobhúvā ~
 refreshing-NOM
ubhá dáksasya vácaso babhūváthuḥ /
 both-NOM skilful-GEN speech-GEN become-2DU.PRF

³⁸ Cf. Geldner (1951b: 369): ‘Denn du bist der Hüter unseres Leibes, Soma; in jedem Gliede hast du Platz genommen als Aufseher.’

‘For both of you have appeared as marvelous, refreshing healers, both have been (masters) of soothing words’³⁹ (RV VIII 86.1ab)

Similar examples include (RV I 32.5–7, II 15.6, IV 1.1, VIII 88.5, VIII 98.5;11, IX 96.11, X 1.7). In these cases, the situations denoted by the Perfect Indicative forms *niṣasātthā* ‘you have sat down’ and *babhūvāthus* ‘you two have become’ may be assumed to be known by the hearer, so that the speaker does not contribute new information by uttering these sentences. It was noted in Chapter Four that the particle *hi* ‘for, because’ is sometimes used to highlight old or given information, as seems to be the case in the examples cited above.

In Chapter Four it was noted that the Aorist Indicative and Perfect Indicative are preferred to the Imperfect in assertive clauses stating a fact and suggested that the preference for the Aorist Indicative is motivated by its salient resultative reading. As the Perfect Indicative is also associated with a resultative reading, it is tempting to propose a similar explanation for the fact that it is preferred to the Imperfect in this kind of context. Formally, this reading may be taken to imply that the event time immediately precedes reference time and that evaluation time is included in and partially preceded by reference time ($t_E > t'$, $t' \leq t_0$, $t_0 \leq t'$). Note that we take the partial precedence relation between reference time and evaluation time to be licensed by the extended now time reference of the Perfect Indicative.

Before concluding this section I shall briefly consider a somewhat controversial issue, namely to what extent the Early Vedic Perfect Indicative may be regarded as an inferential category. This question primarily arises because the native Indian grammarian Pāṇini defines the Perfect Indicative in terms of *bhūte* ‘in the past’ and *paro'kṣane* ‘outside the view’, as will be recalled from the discussion in the Introduction. In particular, the term *paro'kṣane* ‘outside the view’ seemingly implies that the Perfect Indicative has a salient inferential reading in the language he describes, which, however, is several centuries younger than the R̥gveda. It is therefore hardly surprising that a recent study of the use of first person Perfect Indicative forms by Job (1994: 58–60) concludes that the Perfect Indicative cannot be

³⁹ Cf. Geldner (1951b: 410–411): ‘Ihr beide waret ja (von jeher) meisterhafte wohl-tätige Ärzte, ihr beide (Meister) des rechten Wortes.’

regarded as a grammatical marker of inferential evidentiality in Early Vedic. Moreover, Cardona (2002: 237) argues that the Perfect Indicative, the Aorist Indicative and the Imperfect are used in Early Vedic to speak about events that have not been directly witnessed by the speaker. Although these findings may be taken to indicate that the Perfect Indicative neither obligatorily expresses nor represents an exclusive strategy for expressing indirect evidentiality in Early Vedic, they seemingly imply that it is compatible with an inferential reading at this stage. This conclusion is corroborated by the subsequent semantic development of the Perfect Indicative as it becomes a grammatical marker of inferential past in later stages of Vedic (cf. Dahl 2009b, 2010a).

The observation that the Perfect Indicative is compatible with an indirect evidential reading is everything but surprising from a typological perspective. In the discussion in Chapter One it was noted that present anterior categories are sometimes used to imply that the information conveyed by the sentence is not based on eyewitness evidence and that present anterior categories are strongly preferred in certain types of inferential statements. There it was suggested that the inferential reading of the anterior aspect may be regarded as a special instance of the resultative reading, where the speaker infers the existence of a past event from a present state of affairs. If this suggestion is correct, we need to consider briefly whether it is possible to identify any morphosyntactic criteria that may help distinguish the inferential reading from the resultative reading, illustrated by the examples in (184).

Given that the Perfect Indicative has a distinct reading involving an inference from secondary or non-eyewitness evidence, one would expect Perfect Indicative forms to be occasionally or systematically used in so-called opaque contexts, for instance in the scope of a *verbum dicendi* or an attitude verb.

As it turns out, Perfect Indicative forms are found in this particular type of context when a sentence refers to a past situation, a fact, which to my knowledge, has not been noted before. Consider, for instance, the following examples:

- (189) a. tán no ví voco yádi
 that-ACC we-ACC apart say-2SG.AOR.INJ if
 te purá cij
 you-GEN previously even

jaritāra ānaśúḥ sumnám indra
 singers-NOM reach-3PL.PRF benevolence-ACC Indra-VOC
 ‘Tell us now, whether the singers of old in fact have
 obtained your benevolence, O Indra’⁴⁰ (RV VI 22.4ab)

- b. áthā kó veda yáta ābabhúva
 and who-NOM knows-3SG.PRF whence become-3SG.PRF
 ‘And who knows whence it has arisen’⁴¹ (RV X 129.6d after
 Klein 1985: 76)

Other examples include (RV IV 8.6, X 79.6). In these cases, the Perfect Indicative forms *ānaśús* ‘have reached’ and *ābabhúva* ‘has become’ may be taken to denote situations which are outside the realm of the speaker’s own experience. Recall from the discussion in Chapter Four that attitude verbs like *VAS-* ‘want, wish’ are taken to introduce an intensional operator which binds the world argument of assertive clauses and verbs like *VAC-* ‘say’ and *VED-* ‘know’ may be taken to have a similar effect. According to this analysis, the Perfect Indicative forms in (189) are in the scope of the intensional operator (^).

Significantly, the Early Vedic Perfect Indicative may also have a similar reading when it is not directly within the scope of intensional verbs. Consider for instance the following examples:

- (190) a. áśvād iyāya ~ íti yád vādanty
 horse-ABL go-3.SG.PRF thus when speak-3.PL.PRS
 ójaso jātám utá manya enam /
 power-ABL born-ACC then think-1SG.PRS he-ACC
 manyór iyāya harmyēsu tasthau
 rage-ABL go-3.SG.PRF prison-LOC rise-3.SG.PRF
 yātaḥ prajajñá índro asya
 whence be.born-3.SG.PRF Indra-NOM this-GEN
 veda //
 know-3.SG.PRF
 ‘When they speak thus: “He has arisen out of a horse”, then
 I think that he is born from power. He has arisen out of rage,

⁴⁰ Cf. Geldner’s translation (1951b: 121): ‘Das sage uns bestimmt, ob auch schon vordem die Sänger deine Gunst erlangt haben, Indra?’

⁴¹ Cf. Geldner’s translation (1951c: 361): ‘Wer weiß es dann, woraus sie sich entwickelt hat?’

he has arisen in prison. Only Indra knows from whence he is procreated'⁴² (RV X 73.10)

- b. ní śuṣṇa indra dharṇasīm
 into Śuṣṇa-LOC Indra-VOC powerful-ACC
 vājraṃ jaghantha dāsyavi /
 mace-ACC hurl-3SG.PRF dasyu-LOC
 vṛṣā hy ūgra śṛṇviṣé //
 male.bull-NOM for strong-VOC be.famous-2.SG.PRS
 'O Indra, you have hurled the powerful mace at Śuṣṇa, the
 dasyu, for you, O male bull, are famous for being strong'⁴³
 (RV VIII 6.14)

In these examples, the Perfect Indicative forms *iyāya* 'he went, has gone' and *tasthau* 'rose, has risen' *iyāya* 'he went, has gone', *prajajñé* 'has been born' and *jaghantha* 'you hurled, have hurled' seemingly refer to situations which have not been directly observed by the speaker, but are inferred from indirect evidence. Although *prajajñé* 'has been born' is in the scope of the intensional verb *VED-* 'know', the other Perfect Indicative forms are not bound by any explicit intensional operators. The fact that they still seem to have an inferential meaning may be taken as an indication that they are in the scope of an implicit intensional operator (\wedge) which distinguishes the inferential reading from the resultative reading. This difference may be formalized as follows:

- (191) a. Resultative: $\|PRES/XN\|[\lambda P.\lambda t'.\exists e(t_e(e)>t' \wedge |e|=1 \wedge P(e)=T)]$
 b. Inferential: $\wedge\|PRES/XN\|[\lambda P.\lambda t'.\exists e(t_e(e)>t' \wedge |e|=1 \wedge P(e)=T)]$

According to the analysis presented here, the resultative reading of the Perfect Indicative presupposes that the event time immediately precedes reference time and that the cardinality of the situation is one. The inferential reading, on the other hand, is regarded as a

⁴² Cf. Geldner (1951c: 254): 'Wenn sie behaupten: Er ging aus dem Roß hervor, so meine ich, daß er aus der Kraft geboren ist. Er ging aus dem Ingrimme hervor, er befand sich im verschlossenen Hause. Von Wannen er geboren ist, das weiß nur Indra.'

⁴³ Cf. Geldner (1951b: 296): 'Auf den Dasyu Śuṣṇa schlugst du, Indra, die dauerhafte Keule, denn du Gewaltiger, bist als Bulle bekannt'.

contextually determined variant of the resultative reading characterized by the presence of an explicit or implicit intensional operator (\wedge). Recall from the discussion in Chapter One that evidentials were thought to represent a way of manipulating the Ordering Source for epistemic modals. With this analysis, the inferential reading of the Early Vedic Perfect Indicative may be assumed to involve a contextually determined shift to an Ordering Source which indicates that the evidence on which the statement is based is indirect rather than direct and, accordingly, ranks the epistemically accessible worlds in a different manner than the Ordering Source normally involved in statements based on direct evidentials. At present, this suggestion must remain stipulative and await further clarification, but I shall argue in Section 5.3 below that the past potential and counterfactual readings of the Perfect Optative may be analyzed in a similar manner.

The data discussed in this section indicates that the Early Vedic Perfect Indicative represents a present anterior category. In (192) I give a tentative formalization of its semantic properties:

$$(192) \quad ||\text{PRES/XN}||[\lambda P.\lambda t'.\exists e(t_e(e) \leq t' \wedge |e| \geq 1 \wedge P(e)=T)]$$

This formal representation is intended to express that the Perfect Indicative is inherently associated with an extended now time reference, that it denotes the anterior aspect and that it is compatible with a single event as well as a multiple event reading. This concludes the discussion of the Perfect Indicative.

5.2 *The Pluperfect*

This section examines the semantic properties of the so-called Pluperfect, which represents a scarcely attested category of the Early Vedic verb. The label 'Pluperfect' is slightly misleading as these forms, unlike Pluperfect or Past Perfect forms in other languages, do not obligatorily express the relative past relation. The Early Vedic Pluperfect rather represents a past tense category on a par with the Aorist Indicative and the Imperfect, differing from the Perfect Indicative in that it denotes a past reference time.

It should be noted that the semantic properties of the Early Vedic Pluperfect and its synchronic position within the Early Vedic verbal

system remain disputed (cf. e.g. Thieme 1929: 35–51 and Kümmel 2000: 82–86 for a discussion of the status of these forms). As the Pluperfect is typically characterized by a reduplicated stem, an augment and secondary endings, it remains unclear how Pluperfect forms can be distinguished from Imperfect forms of reduplicated present stems and reduplicated Aorist Indicative forms, a fact which poses severe difficulties for any attempt to delimit the Pluperfect as a morphosyntactic category. In order to overcome these difficulties we adhere to a methodological principle along the lines of that proposed by Kümmel (2000: 83–84) that a reduplicated augmented form counts as a Pluperfect if and only if a corresponding Perfect Indicative form is attested.⁴⁴ In the following we shall examine the temporal and aspectual properties of these forms.

As regards the temporal reference of the Pluperfect, it should be noted that forms of this type are almost invariably found in contexts with an indefinite past time reference. For example, there are apparently no instances of Pluperfect forms modified by adverbs which unambiguously indicate an immediate past reference time. Significantly, however, there is one instance where the Pluperfect is found in a context where the adverb *adyá* ‘today’ specifies a hodiernal past reference time. Further, a recent past interpretation is likely in a few more cases as well (cf. also Kümmel 2000: 85–86). Consider, for instance, the following examples:

- (193) a. *adyá ~íd* *u* *prāṇid* *ámamann*
 today indeed just breathe-3SG.AOR wait-3SG.PPF
 imá *áhā ~*
 these-ACC days-ACC

⁴⁴ Cf. Kümmel (2000: 83–84): ‘Grundsätzlich ist also folgende Definition vorzusetzen: ein Perfektpräteritum ist eine augmentierte Verbalform, die einem Perfektstamm zuzurechnen ist und nicht einem Präsens- oder Aoriststamm. Es bedeutet eine vermeidbare und zu vermeidende *multiplicatio entium*, wenn man für Augmentformen, die zwanglos einem (gleichzeitig) belegten Perfektstamm zugeordnet werden können, einen weiteren, mit diesem Perfektstamm homonymen Präsens- oder Aoriststamm ansetzt, der eben nur in diesen Augmentformen auftritt. Um die Funktionen des Perfektpräteritums zu ermitteln, müssen zunächst alle diejenigen Augmentformen auf ihre Funktion hin untersucht werden, die nach morphologischen Kriterien höchstwahrscheinlich einem Perfektstamm zuzurechnen sind. Erst danach dürfen die Zweifelsfälle herangezogen und nach den zuvor gewonnenen Aussagen über die Funktion des Perfektpräteritums beurteilt werden.’

ápīvr̥to adhayan mātúr ūdhaḥ /
 concealed-NOM suck-3SG.IPF mother-GEN breast-ACC
 á ~ īm enam āpa jarimā
 to he-ACC this-ACC reach-3.SG.PRF old.age-NOM
 yúvānam
 young-ACC
 áhelaṇ vásuḥ sumánā
 not.angry-NOM good-NOM benevolent-NOM
 babhūva //
 become-3SG.PRF
 ‘Today he first began to breathe. He had tarried for these days. Concealed he sucked his mother’s breast. Old age has reached the young one. He has become favourable, good and benevolent’⁴⁵ (RV X 32.8)

- b. kím u śréṣṭhaḥ kím yáviṣṭho na
 why now best-NOM why youngest-NOM we-ACC
 ājagan
 come-3SG.PPF
 kím iyate dūtyam kád
 why be.sent-3SG.PRS messenger.duty-ACC what-ACC
 yád ūcimá /
 that-ACC say-1PL.PRF
 ná nindima camasām yó
 not ridicule-1PL.PRF soma.cup-ACC which-NOM
 mahākuló
 of.good.origin-NOM
 ’gne bhrātar drúṇa íd bhūtím
 Agni-VOC brother-VOC wood-GEN indeed origin-ACC
 ūdima //
 talk-1PL.PRF
 ‘Has the best one, the youngest one come to us? Why is he sent on his duty as messenger? What is it that we have said? We have not mocked at the soma cup, which is of good ori-

⁴⁵ Cf. Geldner (1951c: 181): ‘Heute erst begann er zu atmen; er hat diese Tage über gesäumt. Verhüllt sog er an der Mutter Euter. Diesen Jugendlichen hat das Greisenalter eingeholt. Er ist frei von Groll, gütig, wohlgesinnt geworden.’ Cf., however, Kümmel’s (2000: 365) translation of the first two pādas: ‘Heute hat er wirklich ausgeatmet, im Sinn hatte er es [vorher] diese Tage, verhüllt saugte er am Euter der Mutter.’

gin. O brother Agni, we have only talked about the origin of the wood'⁴⁶ (RV I 161.1)

Other possible examples include (RV I 92.2, V 30.13, IX 11.2, IX 86.17, IX 97.30, X 31.3). Although the passage in the first example is not entirely clear, the Pluperfect form *ámaman* 'he tarried, was tarrying, had tarried' apparently denotes a situation which ended at some time on the same day. This reading is indicated by various contextual factors. For one thing, the tarrying event is represented as terminated at the time when the breathing event denoted by the preceding Aorist Indicative form *práñīd* 'breathed, has breathed' takes place. The Aorist Indicative form in turn is modified by the adverb *adyá* 'today' and the past tense of the verb, together with the temporal interval denoted by the adverb, unambiguously restricts the reference time to the part of the same day that is prior to speech time. This interpretation is also suggested by the accusative phrase *imā áhā* 'these days' which may be taken to include the present day. The Aorist Indicative form *práñīd* 'breathed, has breathed' is taken to have an inchoative-ingressive reading here.

The second example is slightly less compelling, as it contains no explicit adverbial modifier. Nevertheless, the Pluperfect form *ájagan* 'has come' may be taken to refer to a situation which is represented as having happened immediately prior to speech time, as indicated by the immediately following Present Indicative form *īyate* 'is sent' which suggests that Agni's arrival has taken place a short while ago, as do the repeated questions about the reason for his arrival. There is some evidence, then, that the Pluperfect is compatible with hodiernal and recent past reference times.

Moreover, Pluperfect forms are also found in contexts where a non-immediate or remote past reference time is likely. Consider, for instance, the following examples:

- (194) a. *yát* *tvā* *sūrya* *svàrbhānus*
 when you-ACC Sūrya-VOC Suvarbhānu-NOM

⁴⁶ Cf. Geldner (1951a: 219): 'Ist der Erste, ist der Jüngste zu uns gekommen? Welche Botschaft bringt er? Was war es, das wir gesagt haben? Wir haben den Becher nicht getadelt, der von guter Herkunft ist. Nur von der Entstehung des Holzes haben wir gesprochen, Bruder Agni.'

támasā ávidhyā āsurāḥ /
 darkness-INS pierce-3SG.IPF āsura-NOM
 ákṣetravid yáthā mugdhó
 not.finding.the.way-NOM like gone astray-NOM
 bhúvanāny *ádīdhayuh* //
 beings-NOM perceive-3PL.PPF

‘When, O sun, Svarbhānu Āsura pierced you with darkness, the creatures had the perception of lost beings, not knowing the territory’⁴⁷ (RV V 40.5 after Jamison 1991: 138)

- b. devébhyaḥ kám avṛṇīta mṛtyúm
 gods-DAT PTC choose-3SG.IPF death-ACC
 prajāyāi kám amṛtaṁ ná avṛṇīta /
 progeny-DAT PTC immortality-ACC not choose-3SG.IPF
 bṛhaspátiṁ yajñám akṛnvata ṛṣiṁ
 Bṛhaspati-ACC sacrifice-ACC make-3PL.IPF Ṛṣi-ACC
 priyám yamás tanvaṁ *práṛirecīt* //
 beloved-ACC Yama-NOM body-ACC leave-3SG.PPF
 ‘For the gods he chose mortality. For his offspring he did not choose immortality. The gods made the Ṛṣi Bṛhaspati (their) sacrifice. Yama had left his beloved body’⁴⁸ (RV X 13.4)

Other possible examples include (RV VI 69.8, VII 18.21, VII 18.8, VII 33.5, X 72.7, X 112.4). In the second example the immediate discourse context suggests that the Pluperfect form *ádīdhayur* ‘perceived, have perceived, had perceived’ in the main clause denotes a situation located in the remote past. The text refers to a mythical eclipse of the sun caused by the āsura Svarbhānu. These data indicate that the Pluperfect is compatible with remote past reference times.

Finally, we may note that the Pluperfect is sometimes used in relative temporal clauses with a relative past reading, as illustrated by the following examples:

⁴⁷ Cf. Geldner (1951b: 38): ‘Als dich, Surya, der asurische Svarbhānu mit Finsternis geschlagen hatte, da schauten die Geschöpfe aus wie ein Verirrter, der nicht ortskundig ist.’

⁴⁸ Cf. Geldner (1951c: 141–142): ‘Den Göttern zuliebe zog (Yama) den Tod vor; der Nachkommenschaft zuliebe zog er nicht die Unsterblichkeit vor. (Die Götter) machten den Ṛṣi Bṛhaspati zu ihrem Opfer. Yama hat seinen lieben Leib fortgepflanzt.’

- (195) a. *ahám guṇgúbhyo atithigvám iṣkaram*
 I-NOM Guṇḡus-DAT Atithigva-ACC establish-1SG.PRS.INJ
iṣam ná vṛtratúram
 refreshing.draught-ACC like enemy.killer-ACC
vikṣú dhārayam /
 clans-LOC place-1SG.PRS.INJ
yát parṇayagná utá vā
 when killing.of.Parṇaya-LOC and PTC
karaṇjahé
 killing.of.Karaṇja-LOC
prá ahám mahé vṛtrahátye
 forth I-NOM great-LOC killing.of.Vṛtra-LOC
áśuśravi //
 be.heard-1SG.PPF
 ‘I established Atithigva for the Guṇḡus, I placed the killer of enemies like a refreshing draught among the clans, after I had caused my fame to be spread in the smiting of Parṇaya or of Karaṇja, the great smiting of Vṛtra’⁴⁹ (RV X 48.8, cd after Klein 1985b: 170)
- b. *yád dha dyāvāprthiví āviveśīr*
 when PTC heaven.and.earth-ACC enter-2SG.PPF
áthā ~ abhavaḥ pūrvyāḥ
 then become-3SG.IPF first-NOM
kāruḍhāyāḥ //
 supporter.of.the.singer-NOM
 ‘When you had entered heaven and earth, then you became the first supporter of the singer’⁵⁰ (RV III 32.10cd)

Other similar examples include (RV I 33.9, I 130.9, I 161.4, I 182.7, III 38.8, VII 38.1, X 82.1). The first example represents a stanza in a hymn where the god Indra boasts of his own heroic deeds (cf.

⁴⁹ Cf. Geldner (1951c: 207): ‘Ich stellte den Guṇḡu’s den König Atithigva wieder her wie eine gute Speise und befestigte den Feindetöter bei seinem Clangenossen, als ich bei der Tötung des Parṇaya oder auch bei der Tötung des Karaṇja und bei der großen Vṛtratötung meinen Ruhm verbreitet habe.’ Cf. also Kümmel’s (2000: 533) translation: ‘Ich [Indra] stärk(t)e für die Guṇḡus den Atithigva, gleichsam als Stärkung halte/hielt ich den Vṛtraüberwinder bei den Stämmen, als bei der Parṇayatötung oder auch der Karaṇjatötung ich mich bekannt gemacht habe/hatte in der großen Vṛtraschlacht.’

⁵⁰ Cf. Geldner (1951a: 371): ‘Als du in den beiden Welten eingezo-gen warst, da wurdest du der erste Brotgeber der Dichter.’

Geldner 1951c: 205–206). The Pluperfect form *áśuśravi* ‘I had caused myself to be heard’ denotes a situation which is temporally located prior to the situations denoted by the Present Injunctive forms *īṣkaram* ‘I establish’ and *dhārayam* ‘I place’ which is taken to have past time reference here. The relative temporal conjunction *yád* ‘when’ which is often used to mark a shift in temporal perspective indicates that the Pluperfect has a relative past reading here. Note also that the locative noun phrases *parṇayaghñé* ‘in the killing of Parṇaya’, *karañjahé* ‘in the killing of Karañja’ and *mahé vṛtrahátye* ‘in the great killing of Vṛtra’ may be taken to specify a remote past reference time for the situation denoted by the Pluperfect form. In the second example, the Pluperfect form *āviveśīs* ‘entered, had entered’ likewise seems to be conceived of as temporally and logically prior to the situation denoted by the immediately following Imperfect form *abhavas* ‘you became’. In cases like the ones cited in (195), relative conjunctions like *yád* ‘when’ indicate that the evaluation time is not anchored in speech time, but in the reference time of the main clause, as will be recalled from the discussion in the previous chapters.

Although the Early Vedic Pluperfect is scarcely attested, it is compatible with recent and hodiernal past reference times, remote past reference times and a relative past reading. These considerations suggest that it has a general past time reference, just like the Imperfect and Aorist Indicative, expressing that reference time is located prior to evaluation time ($t_E < t'$).

Turning now to a discussion of the aspectual properties of the Early Vedic Pluperfect, we may first note that Pluperfect forms of instantaneous achievements tend to be associated with a stative past reading. Consider, for instance, the following examples (cf. also (145b), (193a) and (194a) above):

- (196) a. *yád devāpiḥ śamtanave puróhito*
 when Devāpi-NOM Śamtanu-DAT family.priest-NOM
hotráya vṛtáḥ kṛpáyann
 hotar.duty-DAT chosen-NOM lament-PRS.PRT.NOM
ádīdhet /
 perceive-3SG.PPF
devaśrútaṃ vṛṣṭivániṃ
 with.divine.knowledge-ACC causing.rain-ACC
rārāṇo
 give-PRF.PRT.NOM

bṛhaspátir vácam asmā
 Brhaspati-NOM faculty.of.speech-ACC he-DAT
 ayacchat //
 bestow-3SG.IPF

‘When Devāpi, the family priest of Śaṃtanu, who was chosen for the office of hotar was pondering, lamenting, generous Brhaspati bestowed upon him the sacred power of causing rain by speech’⁵¹ (RV X 98.7)

b. apó mahīr abhísaster amuñcó
 waters-ACC great-ACC curse-ABL release-2SG.IPF
 ’jāgar āsv ādhi devá ékaḥ /
 wake-2SG.PPF them-LOC over god-NOM one-NOM
 ‘You released the great waters from the curse, as the only god you were watching over them’⁵² (RV X 104.9ab)

Other examples include (RV I 149.3, I 182.7, VI 7.4, VII 18.8, VII 63.1, VIII 4.21, X 51.3, X 56.4). The first passage refers to a situation where the priest Devāpi wishes to release the heavenly waters, but is unable to do so because he does not know the sacred formulas of rain-making, as suggested by the Present Participle form *kṛpāyan* ‘lamenting’. As he ponders how to resolve this, the god Brhaspati gives him the ability to produce rain. These considerations suggest that the Pluperfect form *adīdhet* ‘pondered, was pondering’ has a past stative reading here, expressing that the situation is temporally overlapping with the situation denoted by the Imperfect form *ayacchat* ‘bestowed, was bestowing’. In the second example, Indra is named as the only god who has any concern for the waters which were held captive by the demon Vṛtra. This background suggests that the Pluperfect form *ājāgar* ‘watched over, was watching over’ denotes a situation which temporally overlaps with the situation denoted by the Imperfect form *amuñcas* ‘you released, were releasing’ and a stative past reading is therefore likely. The verbs *DHAY*^l- ‘perceive, find out’ and *JAR*^l- ‘awake’ may be taken to represent instantaneous achievement verbs and hence the fact that the Pluperfect forms *adīdhet* ‘pondered’

⁵¹ Cf. Geldner (1951c: 309–310): ‘Als Devapi, der Purohita für Śaṃtanu, zum Hotar-Amt erwählt, sehnsüchtig ausschaute, da verlieh ihm Brhaspati bereitwillig die gott-erhörte regengewinnende Rede.’

⁵² Cf. Geldner (1951c: 322): ‘Du hast die großen Gewässer von der Schmach erlöst; als einziger Gott hast du über sie gewacht.’

and *ájāgar* ‘watched over, was watching over’ have a stative past reading may be taken as an indication that the Pluperfect expresses that event time is prior to reference time ($t_E < t'$).

Pluperfect forms of other types of telic predicates are typically used to express that the situation has been terminated prior to another contextually salient situation. Consider, for instance, the following passages (cf. also example (175b) above):

- (198) a. *vātasya* *yuktán* *suyújaś* *cid*
 wind.god-GEN yoked-ACC well.yoked-ACC even
áśvān
 horses-ACC
kaviś *cid* *eṣó* *ajagann*
 seer-NOM even this-NOM come-3SG.PPF
avasyúḥ /
 seeking.help-NOM
víśve *te* *átra* *marútaḥ* *sákhāya*
 all-NOM you-GEN then Maruts-NOM companions-NOM
índra *bráhmāṇi* *táviṣim* *avardhan* //
 Indra-VOC prayers-ACC courageACC strengthen-3SG.IPF
 ‘Even to the well-yoked horses of the wind this seer had
 come, seeking help. All the Maruts, your companions, then
 strengthened (his) prayers, (his) courage’⁵³ (RV V 31.10)
- b. *kás* *te* *mātáram* *vidhávām*
 Who-NOM you-GEN mother-ACC widow-ACC
acakrac
 make-3SG.PPF
chayúm *kás* *tvám* *ajighāṃśac*
 lying-ACC who-NOM you-ACC wish.to.smite-3SG.IPF
cárantam /
 moving-ACC

⁵³ Cf. Geldner (1951b. 30): “(Lenke) die Gespanne des Vāta, wie gutgeschirrte Rosse; sogar dieser Seher ist schuttsuchend gekommen.” Alle Marut waren dabei deine Genossen; ihre erbauliche Zusprüche stärkten deine Kraft, Indra.’ The present translation mainly follows Kümmel (2000: 159): ‘Sogar zu den gut angeschrirten Pferden des Windes war dieser Weise gekommen hilfesuchend. Alle Maruts, deine Gefährten, stärkten her die Gedichte, die Kraft.’

kás te devó ádhi mārḍiká
 who-NOM you-DAT god-NOM above compassion-LOC
 āsīd
 be-3SG.IPF
 yát prākṣiṇāḥ pitáram pādagr̥hya //
 when destroy-2SG.IPF father-ACC seizing.by.the.foot
 ‘Who had made your mother a widow? Who was trying to
 smite you lying down or moving? Which god was compas-
 sionate with you when you had destroyed your father seiz-
 ing him by the foot?’⁵⁴ (RV IV 18.12)

Other possible examples include (RV I 116.14, V 2.8, V 54.12, VII 71.5, VIII 6.17, VIII 6.20, X 82.1, X 138.5, X 172.7). In the examples cited above, the Pluperfect forms *ajagan* ‘had come’ and *acakrat* ‘(had) made’ denote situations which may be reasonably taken as being terminated prior to the situations denoted by the following Imperfect forms *avardhan* ‘strengthened, were strengthening’ and *āsīt* ‘was’.

From the discussion in the previous chapters it should be clear that the fact that Pluperfect forms of telic predicates show the reading illustrated in (198) in itself does not tell us much about the aspectual properties of the Pluperfect, although this observation may be taken to exclude the possibility that it represents a markedly Imperfective category. Nevertheless, this reading may in principle be indicative of a past neutral, a past perfective or a past anterior semantics. However, considering the fact that Pluperfect forms of instantaneous achievement verbs tend to have a past stative meaning, a reading which arguably implies that the Pluperfect is compatible with the implicature that event time precedes reference time ($t_E < t'$), it would be more parsimonious to assume that examples like those cited in (198) have a similar semantic motivation, at least if one is aiming at a coherent and unitary semantic description of morphological categories. Taken together then, the data cited in (197) and (198) seem to indicate that the Pluperfect represents a past tense category that denotes a semantically specific variant of the anterior aspect, expressing that event time precedes a past reference time ($t_E < t'$, $t' < t_0$).

⁵⁴ Cf. Geldner (1951a: 443): ‘Wer hat deine Mutter zur Witwe gemacht? Wer wollte dich im Liegen oder Gehen töten? Welcher Gott fand Gnade vor dir, als du den Vater am Fuße gepackt und zerschmettert hast?’

However, a closer look at the data reveals that this is not the whole story. In fact, Pluperfect forms of atelic predicates, albeit very rare, tend to be used to denote a situation which temporally overlaps with another contextually salient situation, as illustrated by the following examples (cf. also (193a) above):

- (199) a. *yuktā* *mātā* *āsīd* *dhurī*
 yoked-NOM mother-NOM be-3SG.IPF yoke-LOC
dākṣiṇāyā
 Dakṣiṇa-DAT
ātiṣṭhad *gārbho* *vṛjanīṣv* *antāḥ* /
 stand-3SG.IPF cub-NOM enclosures-LOC within
āmīmed *vatsó* *ānu gām* *apaśyad*
 bellow-3SG.PPF calf-NOM after cow-ACC look-3SG.IPF
viśvarūpyam *triśú* *yójaneṣu* //
 variegated-ACC three-LOC distances-LOC
 ‘The mother was yoked at the yoke for Dakṣiṇa. Her cub was standing within the enclosures. The calf had been bellowing, it was looking for the variegated cow along three distances’⁵⁵ (RV I 164.9)

- b. *āvācacaṣaṃ* *padám* *asya* *sasvár*
 look.down-1SG.PPF trace-ACC he-GEN secretly
ugráṃ *nidhātúr* *ánv* *āyam*
 strong-ACC leaver.of.footmarks-GEN after go-1SG.IPF
icchán /
 seek-PRS.PRT.NOM
 ‘I had secretly been looking down upon his trace, searching I followed the marked (footprint) of him who leaves it’⁵⁶ (RV V 30.2ab)

Other examples include (RV I 33.9, I 164.28, VII 18.21). In these cases, the Pluperfect forms *āmīmet* ‘had bellowed, had been bellowing’ and *āvācacaṣaṃ* ‘I had looked down, had been looking down’

⁵⁵ Cf. Geldner (1951a: 229): ‘Die Mutter war ins Joch der Daksina eingespannt, das Kind stand unter den Das Kalb brüllte, es sah sich nach der Kuh um, nach der allfarbigen drei Wegstrecken weit.’

⁵⁶ Cf. Geldner (1951b: 27): ‘Ich hatte seine Fährte heimlich erspäht; ich folgte suchend der gewältigen (Fährte) des, der sie hinterläßt.’

denote a situation which temporally overlaps with the situation denoted by the following Imperfect forms *apaśyat* ‘looked, was looking’ and *āyam* ‘I went, was going’. The fact that Pluperfect forms of atelic verbal predicates are compatible with a temporally overlapping reading might, in principle, indicate that the Pluperfect denotes the imperfective, neutral or anterior aspect. Given the previous findings, however, it seems more likely that this reading is motivated by an anterior semantics. The readings illustrated in (199) indicate that Pluperfect forms of atelic predicates are compatible with the implicature that event time is coextensive with reference time ($t_E=t'$).

In most of the cases discussed so far, the Pluperfect is used to denote a single specific situation, implying that the cardinality of the situation is one ($|e|=1$). As I have found no instances where Pluperfect forms are modified by iterative or universal temporal adverbs, it is tempting to conclude that this presupposition is a part of the semantic specification of the Pluperfect. However, the following examples may provide evidence against this generalization.

- (200) a. ubhā jigyathur ná pārā
 both-NOM win-2DU.PRF not forth
 jayethe
 be.conquered-2DU.PRS
 ná pārā jigye katarás
 not forth be.conquered-3SG.PRF which.of.two-NOM
 canā enoḥ /
 and.not the.two-GEN
 índraś ca viṣṇo yád ápasṛdhethām
 Indra-NOM and Viṣṇu-VOC when fight-2DU.PPF
 tredhā sahásraṃ ví tād airayethām //
 in.three.parts thousand apart then divide-2.DU.IPF
 ‘You both have won, you have not been conquered. Neither
 of the two has been conquered. Indra and Viṣṇu, when(ever)
 you two had been fighting, you divided the thousandfold
 (spoils) in three parts’⁵⁷ (RV VI 69.8)

⁵⁷ Cf. Geldner (1951b: 173): ‘Ihr beide habt gesiegt, nicht seid ihr unterlegen; keiner von ihnen beiden ist unterlegen, als ihr, Indra und Viṣṇu, in Streit geraten waret, da teiltet ihr das Tausend (Kühe) in drei Teile.’

- b. *tám* *nákam* *aryó*
 this-ACC heaven-ACC nobleman-GEN
ágrbhītaśociṣaṁ
 whose.radiance.is.untouchable-ACC
rúṣat *píppalaṁ* *maruto* *ví*
 bright-ACC berry-ACC Maruts-VOC apart
dhūnutha /
 shuttle-2PL.PRS
sám *acyanta* *vṛjánā* ~
 together unfold-3PL.PRS.INJ enclosures-NOM
yát *átitviṣanta*
 be.agitated-3PL.PPF when
svāraṇti *ghóṣaṁ* *vítatam*
 sound-3PL.PRS noise-ACC extended-ACC
ṛtāyávaḥ //
 following.the.right.way-NOM
 ‘O Maruts, you shuttle bright berries out of the heavenly
 vault, the radiance of which cannot be touched (even) by the
 nobleman. The enclosures fully unfold when(ever) they (the
 Maruts) had been agitated. They resound, widely (making)
 noise, the righteous ones’⁵⁸ (RV V 54.12)

In these cases, the surrounding context suggests that the Pluperfect forms *ápasṛdhethām* ‘you two had fought, had been fighting’ and *átitviṣanta* ‘they had been agitated’ do not denote a single, specific event, but rather an indefinite number of situations of the type named by the predicate. A critical reader might object that examples like these do not furnish evidence of the strongest possible kind, not least because it remains unclear whether the relevant forms are used with a multiple event reading or whether this interpretation is motivated by the generalizing function of the relative conjunction *yád* ‘when, whenever’. Nevertheless, it would be prudent to take them into consideration, as else one might disregard a potentially important reading of the Early Vedic Pluperfect. The semantic properties of the Pluperfect may be formally represented as in (201) below:

⁵⁸ Cf. Geldner (1951b: 62): ‘Vom Himmel, der sich seinen Feuerglanz nicht von den Vornehmen nehmen lässt, schüttelt ihr Marut die hellfarbige Beere. Sie ziehen ihre Gürtel zu, wenn sie in Feuer geraten sind, sie stimmen ihr weitgedehntes Getöse an, den rechten Weg liebend.’

$$(201) \quad ||\text{PAST}||[\lambda P.\lambda t'.\exists e(t_e(e)\leq t' \wedge |e|=1 (\sim|e|\geq 1) \wedge P(e)=T)]$$

This formal representation is intended to express that the Pluperfect is inherently associated with a past time reference, that it denotes the anterior aspect and that it is primarily used with a single event reading, but that it is also marginally compatible with a multiple event reading. These considerations suggest that the Early Vedic Pluperfect has essentially the same aspectual properties as the Perfect Indicative and that it therefore may be rightly regarded as a past anterior category.

5.3 *The Non-Indicative Modal Categories of the Perfect Paradigm*

This section examines the semantic properties of the Subjunctive, Optative, Imperative and Injunctive of the Perfect Stem. It should be noted at the outset that Non-Indicative Modal forms of the Perfect are generally scarce in Early Vedic and, moreover, are often found in contexts that are not sufficiently clear to enable a well-founded semantic judgement. These facts severely limit the generality of the analysis presented here.

Like the Subjunctive forms of the Present and Aorist, the Perfect Subjunctive is typically used to express that a state of affairs may be expected to hold at some time after speech time (cf. also Kümmel 2000: 89). Consider the following examples:

- (202) a.

ká	maryádā	vayúnā	kád	dha	
which-NOM	goal-NOM	aim-NOM	what-NOM	PTC	
vāmám					
wealth-NOM					
ácchā	gamema		raghávo	ná	
towards	go-1PL.AOR.OPT		swift.horses-NOM	like	
vájam /					
prize-ACC					
kadá	no	devīr		amṛtasya	pátñiḥ
when	we-DAT	goddesses-NOM		immortality-GEN	
wives-NOM					
sūro	várṇena	tatanann		uśāsaḥ //	
sun-GEN	colour-INS	spread.out-3PL.PRF.SBJ		dawns-NOM	

‘Towards what goal, what aim, what wealth indeed may we come, like horses to a prize? When will the goddesses of Dawn, the wives of immortality, have spread out with the color of the sun?’⁵⁹ (RV IV 5.13)

- b. *br̥hád váyo maghávadbhyo dadhāta*
 great-ACC energy-ACC generous-DAT place-2PL.PRS.IMP
jújoṣann *ín* *marútaḥ*
 become.pleased-3PL.PRF.SBJ indeed Maruts-NOM
suṣṭutīm *naḥ* /
 excellent.praise-ACC we-GEN
 ‘Bestow great energy on the liberal ones! The Maruts will be pleased with our beautiful song of praise’⁶⁰ (RV VII 58.3ab)

In these examples, the Perfect Subjunctive forms *tatanan* ‘will have extended’ and *jujoṣan* ‘they will be pleased’ may be taken to express that the situation denoted by the predicates *TAN- uṣāsas* ‘the dawns stretch out’ and *JOṢ- suṣṭutīm* ‘enjoy the beautiful hymn’ may be expected to occur in the future. These data indicate that the Perfect Subjunctive denotes future probability, just like the Subjunctive of the Present and Aorist Paradigms.

As regards its aspectual reference, we may first note that Perfect Subjunctive forms of instantaneous achievement predicates tend to have a stative future probability reading. Consider, for instance, the following examples:

- (203) a. *sá ít tántum̐ sá ví jānāty*
 he-NOM indeed thread-ACC he apart know-3.SG.PRS.SBJ
ótum̐
 woof-ACC

⁵⁹ Cf. Geldner (1951a: 426): ‘Welches ist das Ziel, welches die Richtungen, was der Gewinn? Wir wollen ihn erreichen wie die Rennpferde den Siegespreis. Wann werden sich uns die Morgenröten, die göttlichen Herrinnen der Unsterblichkeit, mit der Farbe der Sonne ihr Licht für uns ausbreiten?’

⁶⁰ Cf. Geldner (1951b: 234): ‘Bringet den Lohnherren hohe Lebenskraft! An unserem Loblied sollen die Maruts Freude haben.’

sá váktvāny ṛtuthá
 he-NOM to.be.spoken-ACC at.the.proper.time
 vadāti /
 utter-3SG.PRS.SBJ
 yá īm cīketad amṛtasya
 who-NOM he-ACC perceive-3SG.PRF.SBJ immortality-GEN
 gopá
 herdsman-NOM
 ‘Indeed, he will understand the thread, he will understand
 the woof, he will utter that which is to be spoken at the
 right time, he who as the protector of immortality will know
 him’⁶¹ (RV VI 9.3a–c)

- b. yó yájāti
 who-NOM sacrifice-3SG.PRS.SBJ
 yájāta ít
 sacrifice.for.one’s.self-3SG.PRS.SBJ indeed
 sunávac ca pácāti ca /
 extract-3SG.PRS.SBJ and cook-3SG.PRS.SBJ and
 brahmá ~ íd índrasya
 brahman-NOM indeed Indra-GEN
 cākanat //
 become.pleased-3SG.PRF.SBJ
 ‘The brahman who will sacrifice for others, who will sacri-
 fice for him, who will extract (soma) and cook (sacrificial
 food), he will enjoy Indra’s (friendship)’⁶² (RV VIII 31.1)

Other examples include (RV II 11.13, VI 62.9, VII 42.4, VIII 9.4, VIII 26.14, X 147.4). In these passages, the Perfect Subjunctive form *cīketad* ‘will know’ and *cākanat* ‘will enjoy’ may be taken to denote a situation which apparently is understood as temporally overlapping with the situations denoted by the Present Subjunctive form *vadāti* ‘he will utter’, on the one hand, and *yájāti* ‘will sacrifice’, *yájāte* ‘will sacrifice for himself’, *sunávac* ‘will extract’ and *pácāti* ‘will cook’, on the other.

⁶¹ Cf. Geldner (1951b: 101): ‘Nur dieser versteht den Faden, er den Einschlag, er wird richtig die Worte reden, der ihn kennt als der Hüter der Unsterblichkeit.’

⁶² Cf. Geldner (1951b: 341): ‘Wer für andere und für sich selbst opfern und (Soma) auspressen und (Opferspeisen) kochen wird, der Brahmane wird des Indra froh werden.’

In such cases, the Perfect Subjunctive expresses that a state of the type implied by the instantaneous achievement verb is expected to hold in the future. This reading would seem to indicate that the Perfect Subjunctive expresses that event time is located prior to reference time ($t_E < t'$).

Perfect Subjunctive forms of other telic predicates are somewhat more common and, in a few cases, appear to have a future resultative reading. Consider, for instance, the following examples:

- (204) a. *yás ta idhmám jabhárat*
 who-NOM you-DAT fuel-ACC carry-3SG.PRF.SBJ
siṣvidānó
 sweat-PRF.PRT.NOM
mūrdhānaṃ vā tatápate tvāyā /
 head-ACC or heat.one's.self-3.SG.PRF.SBJ you-INS
bhúvas táśya svátavāṃḥ
 become-2SG.AOR.SBJ he-GEN self.powerful-NOM
pāyúr agne
 protector-NOM Agni-VOC
 'Agni, the one who, sweating, will have carried fuel to you
 or will have caused his head to be hot for your sake, for him
 you will become a self-powerful protector'⁶³ (RV IV 2.6a–c)
- b. *prá sú gmántā dhiyasānásya*
 forth well come-AOR.PRT.NOM attentive-GEN
sakṣāṇi
 prevail-INF
varébhīr varāṃ abhí śú prasīdataḥ /
 best-INS best-ACC to well sit.down-PRS.PRT.GEN
asmákam índra ubháyaṃ jujoṣati
 we-GEN Indra-NOM both-ACC enjoy-3SG.PRF.SBJ
yát somyásya ~ ándhaso búbodhati //
 when of.soma-GEN juice-GEN notice-3SG.PRF.SBJ
 'The two (steeds) of the attentive have come so that he who
 sits down (here) will defeat the best by the best. Indra will

⁶³ Cf. Geldner (1951a: 417): 'Wenn einer im Schweiße Brennholz für dich trägt oder sich deinetwegen den Kopf heiß werden läßt, so sollst du ihm ein selbstsicherer Schützer sein, o Agni.'

enjoy both (the sacrifice and the praise) of ours, when he will have noticed the soma juice'⁶⁴ (RV X 32.1)

Other possible examples include (RV I 103.2, VI 56.1, VII 17.4, VII 86.1, VIII 39.9). In the first example, the Perfect Subjunctive forms *jabharat* 'will have carried' and *tatápate* 'will have heated' denote situations which are temporally and causally prior to that denoted by the Aorist Subjunctive form *bhuvas* 'will become'. The Perfect Subjunctive forms are found in a relative clause which may be taken to express a condition sufficient for the situation in the main clause to take place. In the second example, the Perfect Subjunctive form *búbodhati* 'will have noticed' likewise may be taken to express the condition that the situation has to be terminated prior to the situation denoted by the preceding Perfect Subjunctive form *jujoṣati* 'will have enjoyed'. The data in (204) may therefore be taken to indicate that the Perfect Subjunctive is compatible with a future resultative reading, which, on the basis of the previous discussion, would seem to imply that it is compatible with the implicature that event time precedes reference time ($t_E < t'$).

Perfect Subjunctive forms of atelic verbal predicates are scarce in Early Vedic. In general they denote a situation temporally overlapping with another situation in the same context. Consider the following set of examples:

- (205) a. prá ~ asmā ūrjaṃ ghṛtaścútam
 forth he-DAT strength-ACC dripping.of.ghee-ACC
 áśvinā yácchataṃ yuvám /
 Aśvins-VOC bring-2DU.PRS.INJ you.two-NOM
 yó vāñ sumnāya
 who-NOM you.two-ACC benevolence-DAT
tuṣṭávad
 praise-3SG.PRF.SBJ
 vasūyād dānunas patī //
 desire.wealth-3SG.PRS.SBJ dew-GEN lords-VOC

⁶⁴ Cf. Geldner (1951c: 180): 'Unterwegs sollen die beiden Rosse des aufmerksamen Indra fein aushalten, der sich mit Werbern fein zu Werbern hinsetzt. An beidem von uns möge Indra Gefallen haben, wenn er dem somischen Trank Beachtung schenken wird.'

‘O Ásvins, you two bring forth the ghee-dripping strength to him who will have been praising you for benevolence (and will be) desiring wealth, O lords of dew’⁶⁵ (RV VIII 8.16)

- b. avipró vā yád ávidhad
 not.inspired-NOM or when apportion-3SG.AOR
 vípro vā ~ indra te vācaḥ /
 inspired-NOM or Indra-VOC you-DAT speech-ACC
 sá prá *mamandat* tvā ~ ayá
 he-NOM forth exhilarate-3SG.PRF.SBJ you-ACC thus
 śatakrato
 of.hundred.insights-VOC
 prācāmanyō āhaṃsana //
 moving.forwards-VOC eager.to.obtain.for.one’s.self-VOC
 ‘O Indra, when the uninspired or the inspired one has
 bestowed speech on thee, he will thereby have been exhilarating you, O you of hundred insights, who move forward, eager to obtain’⁶⁶ (RV VIII 61.9)

Other possible examples include (RV V 50.4, VII 16.2, VII 32.14, VII 52.2). In these examples, the Perfect Subjunctive forms *tuṣṭávat* ‘will have praised’ and *mamandat* ‘will have been exhilarating’ may be taken to denote a situation that temporally overlaps with the situation denoted by the immediately following Present Subjunctive form *vasūyāt* ‘will desire wealth’ and the immediately preceding Aorist Indicative form *ávidhad* ‘has apportioned’, respectively. Examples like these may be taken to indicate that the Early Vedic Perfect Subjunctive is compatible with the implicature that event time is coextensive with reference time ($t_E=t'$).

In most attested cases, the Perfect Subjunctive appears to have a single event reading, as illustrated by the examples cited so far. Significantly, however, it is occasionally used in contexts where a multiple event reading is likely, as illustrated by the following examples:

⁶⁵ Cf. Geldner (1951b: 303): ‘Gewähret ihm schmalztriefende Nahrung, ihr Asvin, der euch um eure Gunst preist und Gut heischen möchte, ihr Herren der Gabe.’

⁶⁶ Cf. Geldner (1951b: 383): ‘Wenn einer, unberedt oder beredt, dir, Indra, die Rede recht gemacht hat, so sei er deinetwegen sorglos, du Ratereicher, Vorwärtseifernder, Gewinnsüchtiger.’

- (206) a. té no grṇāné mahinī
 these-NOM we-DAT be.praised-PRS.PRT.NOM great-VOC
 máhi śrávaḥ
 great-ACC fame-ACC
 kṣatráṃ dyāvāpṛthivī dhāsatho
 supremacy-ACC heaven.and.earth-VOC place-2DU.SBJ
 bṛhát /
 great-ACC
 yéna ~ abhí kṛṣṭís tatánāma
 which-INS to races.of.men-ACC extend-1PL.PRF.SBJ
 viśvāhā
 always
 ‘O mighty ones, heaven and earth, being praised you will
 give us great fame and mighty supremacy, by which we will
 always have extended over the races of men’⁶⁷ (RV I
 160.5a–c)
- b. dhīro hy ásy admasád
 wise-NOM for be-2SG.PRS companion.at.table-NOM
 vípro ná jāgrviḥ sádā /
 inspired-NOM like watchful-NOM always
 ágne dīdáyasi dyávi //
 Agni-VOC begin.to.shine-2SG.PRF.SBJ heaven-LOC
 ‘For you are a wise companion; like an inspired one always
 watchful you will shine onto the vault of heaven’⁶⁸ (RV VIII
 44.29)

In these cases, the adverbs *viśvāhā* ‘always’ and *sádā* ‘always’ may be taken to indicate that the Perfect Subjunctive forms *tatánāma* ‘will have extended’ and *dīdáyasi* ‘you will be shining’ have a multiple event reading. Note, however, that these are isolated examples and moreover that the Perfect Subjunctive form *dīdáyasi* ‘you will be shining’ does not seem to be directly modified by the adverb *sádā* ‘always’. The heuristic value of these examples thus remains

⁶⁷ Cf. Geldner (1951a: 219): ‘Gepriesen möget ihr großmächtigen Himmel und Erde uns großen Ruhm und hohe Herrschaft gewähren, durch die wir allezeit die Völker überstrahlen.’

⁶⁸ Cf. Geldner (1951b: 360): ‘Denn du bist ein Weiser, der beim Mahle sitzt, wie ein Redegewandter immer munter. Agni, du mögest bis zum Himmel scheinen.’

questionable. Nevertheless, it seems justified to conclude that the Perfect Subjunctive is compatible with the implicature that the cardinality of the situation is more than one ($|e| > 1$). In (207) I give a formal representation of the semantic properties of the Perfect Subjunctive:

- (207) $[_{MP} \forall w \in W' \subset W [_{TP} ||FUT|| [\lambda P. \lambda t'. \exists e (t_e(e) \leq t' \wedge |e|=1 (\sim |e| \geq 1) \wedge P(e)=T)]]^w]$

Turning now to the Perfect Optative, we may first note that it has roughly the same modal readings as the Optative forms of the Present and Aorist (cf. also Kümmel 2000: 89–90). In Chapters Three and Four it was suggested that the Optative is typically used to express epistemic possibility, a meaning which, under certain circumstances, gives rise to a cupitive reading under which the Optative expresses a wish of the speaker. The following examples show that Perfect Optative forms are compatible with both these readings:

- (208) a. *māmac canā tvā yuvatīḥ*
 me-ABL and.not you-ACC young.maiden-NOM
parāśa
 abolish-3SG.PRF
māmac canā tvā kuśāvā
 me-ABL and.not you-ACC Kuśavā-NOM
jagāra /
 devour-3SG.PRF
māmac cid āpaḥ śísave
 me-ABL even waters-NOM child-DAT
mamṛḍyur
 be.gracious-3PL.PRF.OPT
māmac cid índraḥ sáhasā ~ ud atiṣṭhat //
 me-ABL even Indra-NOM suddenly up stand-3SG.IPF
 ‘Because of me, the young maiden has not abandoned you.
 Because of me, Kuśava has not devoured you. Because of
 me, even the waters may have been gracious to the child.
 Because of me, even Indra suddenly stood up’⁶⁹ (RV IV 18.8)

⁶⁹ Cf. Geldner (1951a: 442–443): ‘Um meinetwillen hat dich die junge Frau nicht beseitigt, noch hat dich um meinetwillen die Kuśavā verschlungen. Um meinetwillen mögen sich die Gewässer des Kindes erbarmt haben, um meinetwillen erhob sich plötzlich der Indra.’

- b. *yamásya mā yamyàṃ káma*
 Yama-GEN me-ACC Yami-ACC love-NOM
ágan
 come-3.SG.AOR
samāné yónau sahaśéyyāya /
 same-LOC.SG bedstead-LOC lie.together-INF
jāyā ~ iva pátye tanvāṃ
 wife-NOM like husband-DAT body-ACC
riricyāṃ
 abandon-1.SG.PRF.OPT
ví cid vṛheva ráthyā ~
 apart even embrace-1PL.PRS.OPT of.a.wagon-NOM
iva cakrá //
 like wheels-NOM
 ‘A love for Yama has come over me Yami to lie together at
 the same bedstead. Like a wife to a husband I wish to have
 offered my body (to you). May we hustle passionately like
 two wheels of a wagon’⁷⁰ (RV X 10.7)

The stanza in the first example belongs to a dialogue hymn in which Indra and his mother speak about the circumstances of his birth and early childhood. In this context, the Perfect Optative form *mamṛdyus* ‘they may have been gracious’ may be taken to express that the situation denoted by the predicate represents a possible state of affairs but that the speaker remains uncommitted with regard to whether it has actually taken place or not. This example neatly illustrates the characteristic use of the Perfect Optative to express possibility in the past (cf. e.g. Kümmel 2000: 90). The second example is drawn from a curious hymn in the tenth book of the Rigveda, where Yama and his twin sister Yami have a bizarre dialogue in which she repeatedly invites him to commit incest, and he repeatedly refuses her attempts to seduce him.⁷¹ In the present stanza, the Perfect Optative form

⁷⁰ Cf. Geldner (1951c: 435): ‘Über mich Yami ist die Liebe zu Yama gekommen, mit ihm auf gleichem Lager zusammen zu liegen. Wie das Weib dem Gatten will ich den Leib hingeben. Wir wollen hin und her schieben wie die Wagenräder!’

⁷¹ The perhaps most imaginative discussion of this hymn is represented by Ulrich Schneider (1967, in particular 28) who suggests that the hymn has been at the centre of a ritual against prenatal incestual relations among twins of different gender.

riricyām ‘I wish to have offered’ expresses a wish of the speaker as strongly indicated by the previous sentence.

Having established that the Perfect Optative has the same basic modal meaning as the Present and Aorist Optative, we may now turn to a discussion of its aspectual semantics. Again, it is convenient to start the discussion with Perfect Optative forms of instantaneous achievements. Forms of this type typically assume a possible stative present meaning. Consider the following examples:

- (209) a. *jáyema* *kāré* *puruhūta*
 win-1PL.PRS.OPT contest-LOC invoked.by.many-VOC
kārīṇo
 enemies-ACC
’bhí *tiṣṭhema* *dūḍhyaḥ* /
 against rise-1PL.PRS.OPT malevolent-ACC
nṛbhir *vṛtrām* *hanyāma*
 men-INS enemy-ACC smite-1PL.PRS.OPT
śūśuyāma *ca*
 get.strength-1PL.PRF.OPT and
aver *indra* *prá* *ṇo* *dhíyaḥ* //
 favour-2SG.PRS.OPT Indra-VOC forth our prayers-ACC
 ‘O you who are invoked by many, may we defeat the ene-
 mies in contest, may we overcome the malevolent, may we
 smite the enemy with (our) men and may we be strong.
 Indra, may you favor our prayers’⁷² (RV VIII 21.12)
- b. *nítyaś* *cākanyāt*
 eternal-NOM become.pleased-3SG.PRF.OPT
svápatir *dāmūnā*
 own.lord-NOM house.friend-NOM
yásmā *u* *deváh* *savitá* *jajāna* /
 who-DAT and god-NOM Savitar-NOM create-3SG.PRF

⁷² Cf. Geldner (1951b: 326): ‘Wir wollen im Kampfspiel die Kampfspieler besiegen, du Vielgerufener, und die bemeistern, welche Böses im Sinn haben. Mit unseren Mannen wollen wir den Vṛtra (Feind) erschlagen und überlegen sein. Du, Indra, mögest unsere Absichten fördern.’

bhágo vā góbhīr aryamá ~ īm
 Bhaga-NOM or cow-INS.PL Aryaman-NOM he-ACC
 anajyāt
 anoint-3SG.PRF.OPT
 só asmai cáruś chadayad utá
 he-NOM he-DAT dear-NOM seem-3SG.PRS.INJ and
 syāt //
 be-3SG.PRS.OPT

'May the constant, domestic self-lord, for whom the heavenly lord Savitar has begotten (a hymn) be happy. Or let Bhaga or Aryaman anoint him with cows. That will seem dear to him, and might it (truly) (be so)!'⁷³ (RV X 31.4, after Klein 1985b: 184, 1985a: 366)

Other possible examples include (RV II 2.10, X 73.9). The form *śūsuyāma* 'may we be strong' in the first example represents a fairly clear-cut case of a Perfect Optative form expressing that the state introduced by the completion of the situation specified by the predicate occurs at the same time as the situation denoted by the preceding Present Optative form *hanyāma* 'may we smite'. In the second example, the Perfect Optative form *cākanyāt* 'he may be happy' likewise may be taken to denote a state which is temporally overlapping with the situation denoted by the preceding Present Injunctive form *chadayat* 'seem' and the Optative form *syāt* 'may be'. Following the discussion in the previous section, it is reasonable to conclude that the stative present reading associated with Perfect Optative forms of instantaneous achievement predicates may be interpreted as an indication that the Perfect Optative is compatible with the implicature that event time precedes reference time ($t_e < t'$).

Turning now to Perfect Optative forms of other types of telic predicates, we may note that they tend to have a markedly resultative reading, as may be illustrated by the following examples:

⁷³ Cf. Geldner (1951c: 178): 'Der ständige Eigentümer und Hausgebieter soll daran Gefallen haben, für den ihn Gott Savitr bestimmt hat. Oder Bhaga und Aryaman sollen ihn mit Kühen auszeichnen: er scheine ihm angenehm und sei es auch.'

- (210) a. *yác chuśrūyā imám hávaṃ*
 if listen-2SG.PRF.OPT this-ACC invocation-ACC
durmārṣaṃ cakriyā utá /
 unforgettable-ACC do-2SG.PRF.OPT and
bháver āpír no
 become-2SG.PRS.OPT friend-NOM we-DAT
ántamaḥ //
 most.intimate-NOM
 'If you had listened to this invocation, you would have done
 something unforgettable and might become our most inti-
 mate friend'⁷⁴ (RV VIII 45.18)
- b. *śunaḥśépo hy áhvaḍ gr̥bhītás*
Śunaḥśépa-NOM for call-3SG.AOR taken-NOM
triṣv ādityám drupadéṣu
 three-LOC son.of.Aditi-ACC wooden.pillars-LOC
baddháḥ /
 bound-NOM
áva ~ enám rájā váruṇaḥ
 off he-ACC king-NOM Varuṇa-NOM
sasrjyād
 emit-3SG.PRF.OPT
vidvám ādabdhó ví mumoktu
 know-3SG.PRF.PRT undeceivable-NOM apart
páśān //
 release-3SG.PRF.IMP bonds-ACC
 'For Śunaḥśépa who was taken and bound to three wooden
 pillars called Aditi's son. King Varuṇa could have set him
 free. He shall have the bonds untied!'⁷⁵ (RV I 24.13)

Other possible examples include (RV V 15.4, V 41.17, V 45.11, V 74.10, V 77.4, VI 63.2, VII 88.2, VIII 73.5, X 85.23). In the first example, the Perfect Optative forms *śuśrūyās* 'you would have listened' and *cakriyās* 'you would have done' denote two causally and temporally dependent situations. The telic predicate ŚRAV- *imám hávaṃ* 'listen

⁷⁴ Cf. Geldner (1951b: 362): 'Wenn du auf diesen Ruf hörtest, so tätest du etwas, was gar nicht zu vergessen ist, und du würdest unser bester Freund sein.'

⁷⁵ Cf. Geldner (1951a: 26): 'Denn Śunaḥśépa hat im Bande geschlagen, an drei Blöcke gebunden, den Aditisohn angerufen. König Varuṇa möge ihn freigeben. Der Kundige, Untrügliche soll die Schlinge lösen.'

to this invocation' expresses a necessary causal prerequisite for the situation denoted by the process predicate *KAR- durmārṣam* 'do something unforgettable' in this context. The successful completion of these two situations represents a necessary condition for the situation denoted by the following Present Optative form *bhaves* 'you may become' to obtain. A resultative reading is therefore likely here. In the second example, on the other hand, the Perfect Optative *sasṛjyāt* 'could have emitted' may be taken to express that the state resulting from the event denoted by the verbal predicate could have held at the time of the utterance, but in fact does not hold, as indicated by the following Perfect Imperative form *mumoktu* 'he shall release!'. Taken together with the data in (210), these and similar examples indicate that the Perfect Optative is sometimes used to express that event time precedes reference time ($t_E < t'$).

Perfect Optative forms of unambiguously atelic predicates are scarce in Early Vedic. In cases where a semantic judgement is possible, forms of this type appear to denote a situation which could have been extending for a definite or indefinite period of time. Consider the following examples:

- (211) a. *índra yās tvám vṛtratúrye*
 Indr-VOC which-ACC you-NOM battle.with.Vṛtra-LOC
cakārtha
 make-2SG.PRF
tābhir viśvāyus tanvām
 those-INS whole.life-ACC body-ACC
pupuṣyāḥ //
 flourish-2SG.PRF.SBJ
 'Indra, by the deeds which you have accomplished in the battle against Vṛtra you could have been prospering with regard to your body for your entire life'⁷⁶ (RV X 104.9cd)
- b. *pāri cin mārto dráviṇam*
 round even mortal-NOM wealth-ACC
mamanyād
 think-3SG.PRF.OPT

⁷⁶ Cf. Geldner (1951c: 322): 'Die su, Indra, im Vṛtrakampf gewonnen hast, durch sie sollst du lebenslänglich deinen Leib pflegen.'

ṛtásya pathá námasá
 order-GEN road-INS obeisance-INS
 vivāset
 wish.to.win-3SG.PRS.OPT
 utá svéna krátunā sám vadeta
 and own-INS insight-INS together speak-3SG.PRS.OPT
 śréyāṃsaṃ dákṣaṃ mánasā
 better-ACC strength.of.will-ACC mind-INS
 jagrbhyāt //
 get-3SG.PRF.OPT
 ‘The mortal should even have been disregarding wealth and
 should want to prevail by obeisance along the road of order.
 By his own insight he should speak coherently, he should have
 acquired a better strength of will by his mind’⁷⁷ (RV X 31.2)

Other possible examples include (RV I 140.13, I 149.2, I 173.7, VI 37.2, X 43.9). In the first example, the Perfect Optative form *pupuṣyās* ‘you could have been prospering’ denotes a situation which might have occurred throughout the time interval denoted by the durative time adverb *viśvāyus* ‘for all the life’. In the second example, the Perfect Optative form *mamanyād* ‘he should have been disregarding’ denotes a situation which may be conceived of as temporally overlapping with the situations denoted by the following Desiderative Present Optative form *vivāset* ‘he should want to prevail’, the Present Optative form *vadeta* ‘he should speak’ and the Perfect Optative form *jagrbhyāt* ‘he should have aquired’, which apparently has a resultative meaning here. The fact that the form *pupuṣyās* ‘you could have been prospering’ in the first example is modified by a durative adverb strongly suggests that the Perfect Optative is compatible with the implicature that event time is coextensive with reference time ($t_E=t$). Given what has been said previously about the aspectual semantics of the Perfect Optative, these data indicate that the Perfect Optative denotes the anterior aspect ($t_E \leq t$).

At this point, it could be objected that the present interpretation of the Perfect Optative form *mamanyād* as ‘should have been disregard-

⁷⁷ Cf. Geldner (1951c: 178): ‘Der Sterbliche sollte doch den Reichtum gering schätzen, er soll ihn auf dem Wege des Rechten demütig zu gewinnen suchen. Und er gehe mit seiner eigenen Einsicht zu Rate und fasse im Geiste besseren Entschluß.’

ing' in (211b) seems a bit forced. Our interpretation of this passage is based on the assumption that the first sentence expresses a general precept which, though desirable, is conceived of as rarely, if ever obtaining. This assumption finds some support in the fact that the Perfect Optative is usually used to express counterfactual statements, as suggested by examples like the one cited in (210b) where the Perfect Optative form *sasṛjyāt* 'he could have emitted' denotes a state resulting from the completion of the event named by the verb which could have occurred but which does not hold at the time of the utterance. The following passages furnish clear-cut examples of this use of the Perfect Optative:

- (212) a. *vísvo hy ànyó arír*
 Every-NOM for other-NOM nobleman-NOM
ājagāma
 come.hither-3SG.PRF
mama ~ íd áha śváśuro ná ~ á
 I-GEN indeed yet father.in.law-NOM not hither
jagāma /
 come-3SG.PRF
jakṣīyād dhānā utá sómaṃ
 eat-3SG.PRF.OPT grains-ACC and soma-ACC
papīyāt
 drink-3SG.PRF.OPT
svāśītaḥ púnar āstaṃ jagāyāt //
 well.saturated-NOM again home-ACC go-3SG.PRF.OPT
 'Although every other nobleman has come hither, my father-in-law has not come yet. He could have eaten barley-corn and could have drunk soma; he could have gone home well saturated'⁷⁸ (RV X 28.1)
- b. *índro no asyá pūrvyāḥ*
 Indra-NOM we-GEN this-GEN first-NOM
papīyād
 drink-3SG.PRF.OPT

⁷⁸ Cf. Geldner (1951c: 171): 'Allewelt und sonstiger Standesherr ist doch gekommen, nur mein Schwäher ist nicht gekommen. Er hätte Gerstenkörner essen und Soma trinken und wohlgesättigt wieder nach Hause gehen können.'

dyukṣó mādasya somyáśya rājā //
 heavenly-NOM inebriation-GEN of.Soma-GEN king-NOM
 āśasrāṇāsaḥ śavasānām āccha~
 hasten-PRF.PRT.NOM vigorous-ACC towards
 índraṁ sucakré rathyāso
 Indra-ACC with.beautiful.wheels-LOC of.a.wagon-NOM
 áśvāḥ /
 horses-NOM
 abhí śráva řjyanto
 to glory-ACC be.strong-PRS.PRT.NOM
 vaheyur
 carry-3PL.PRS.OPT
 ‘Indra should have been drinking of this (soma) as the first,
 the heavenly king of somic inebriation. Having been hasten-
 ing, the strong draught horses may be bringing vigorous
 Indra hither on a wagon with beautiful wheels, to glory’⁷⁹
 (RV VI 37.2cd–3c)

Other possible examples include (RV VI 35.4, X 10.3, X 85.23). In these examples, the Perfect Optative forms *jakṣīyāt* ‘he could have eaten’, *papīyāt* ‘he could have drunk’ and *jagāyāt* ‘he could have gone’ denote a state of affairs which could have taken place under given circumstances, which, however, differ considerably from the circumstances constituting the Common Ground of the discourse fragments cited here. It is tempting to link the counterfactual use of the Perfect Optative to its basic anterior aspectual character, especially because the Present and Aorist Optative do not seem to convey this meaning. Specifically, the combination of the resultative reading licensed by the anterior aspect and the possibility relation denoted by the Optative together imply that the resultant state holds in at least one epistemically accessible world. However, any world in which this state holds differs in significant respects from the Common Ground or universe of discourse in which this statement is uttered, as the situations which must be completed in order for the state to hold have not taken place

⁷⁹ Cf. Geldner (1951b: 134): ‘Indra soll uns als Erster von diesem (Soma) trinken, der himmlische König des somischen Rauschtranks. Hereilend sollen den gewaltigen Indra auf schönräderigem (Wagen) die Wagenrosse gestreckten Laufes zum Ehrenpreis fahren.’

Before concluding the discussion of the semantic properties of the Perfect Optative I would like to draw attention to the fact that forms of this type are in the immediate or non-immediate scope of universal or existential quantifier adverbs, which may be taken as an indication that the Perfect Optative is compatible with the implicature that the cardinality of the situation is more than one ($|\mathbf{e}| > 1$). Consider the following examples:

- (213) a. ánūrdhvabhāsaḥ sādām ít
whose.spendor.does.not.rise-ACC always indeed
tuturyāt //
overcome-3SG.PRF.OPT
'Indeed, he would always have overcome those whose splendor does not rise'⁸⁰ (RV V 77.4cd)

⁸⁰ Cf. Geldner (1951b: 82): 'Er möge jederzeit die überbieten, deren Flamme nicht emporschlägt.'

- b. á vām narā purubhujā
 to you.two-ACC men-VOC enjoying.much-VOC
vavṛtyām
 turn-1SG.PRF.OPT
 divé-dive cid ásvinā sakhīyān //
 day.by.day even Ásvins-VOC seek.friendship-PRS.PRT.NOMs
 ‘O heroes who enjoy much, I wish to have steered you
 hither, day by day also seeking (your) friendship’⁸¹ (RV V
 49.1cd)

We may now briefly summarize the discussion of the semantic properties of the Perfect Optative. This morphosyntactic category has been shown to denote epistemic possibility and anterior aspect, as well as to express that the cardinality of the situation is one or more. In (214) we give a formal representation of the semantic properties of the Perfect Optative:

- (214) $[_{MP} \exists w \in W' \subset W [_{TP} \emptyset [\lambda P. \lambda t'. \exists e (t_e(e) \leq t' \wedge |e| \geq 1 \wedge P(e) = T)]]^w]$

We may now examine the semantic properties of the Imperative forms of the Perfect Stem. It should be noted from the outset that Perfect Imperative forms are rare in Early Vedic. The Perfect Imperative has approximately the same variety of deontic readings as the Imperative forms of the Present and Aorist Paradigms, as illustrated by the following examples:

- (215) a. tvām no asyā vácasaś
 You-NOM we-GEN this-GEN speech-GEN
cikiddhi
 perceive-2.SG.PRF.IMP
 hótar yaviṣṭha sukrato dāmūnāḥ //
 hotar-VOC youngest-VOC wise-VOC house.friend-NOM
 ‘Perceive this our speech, O youngest hotar, O wise house-
 friend!’⁸² (RV IV 4.11cd)

⁸¹ Cf. Geldner (1951b: 55): ‘Euch beide, ihr vielnützenden Herren, möchte ich herlenken, um Tag für Tag (euch) Freundschaft zu halten, ihr Ásvin.’

⁸² Cf. Geldner (1951a: 423): ‘Vermöge meiner Abstammung zerschmetterte ich mit den Worten des großen (Vaters). Das ist mir vom Vater Gotama überkommen. Achte du auf dieses Wort von uns, jüngster, wohlverständiger Hotṛ, als der Hausgebieter!’

- b. etáu me gávau pramarásya yuktáu
 these-ACC I-DAT oxen-ACC death-GEN yoked-ACC
 má ~ u śú prá sedhīr múhur ín
 don't now well forth urge-2SG.AOR.INJ a.moment indeed
mamandhi /
 wait-2SG.PRF.IMP
 'Don't drive on the two oxen of death which have been
 yoked for me! Please wait for a moment!'⁸³ (RV X 27.20ab)

These examples illustrate that the Perfect Imperative may be used to issue an invitation, as in the first example, or to express a request, as in the second example.

As Perfect Imperative forms are scarcely attested, their aspectual properties remain somewhat unclear. Nevertheless, a case can be made for the claim that Perfect Imperative forms show roughly the same set of lexically determined readings as the other categories belonging to the Perfect Paradigm discussed previously in this chapter. For example, Perfect Imperative forms of instantaneous achievement predicates apparently have a stative meaning, as illustrated by example (215a) and the following examples:

- (216) a. á ~ eṣu *cākandhi*
 to these-LOC become.pleased-2SG.PRF.IMP
 puruhūta sūrīṣu
 much.invoked-VOC sacrificers-LOC
 vṛdhāso yé maghavann ānaśúr
 grown-NOM who-NOM generous-VOC reach-3PL.PRF
 maghām /
 wealth-ACC
 'O much invoked one, be pleased with these sacrificers here
 who have obtained wealth, O generous one!'⁸⁴ (RV X 147.3ab)
- b. antár vāṇīṣu prá carā sú jīvāse
 within voices-LOC forth move-2SG.PRS.IMP well live-INF

⁸³ Cf. Geldner (1951c: 168): 'Diese beiden Rinder des Todes sind für mich gespannt; treibe sie doch nicht an, warte noch ein Weilchen!'

⁸⁴ Cf. Geldner (1951c: 380): 'Finde an diesen Gönnern gefallen, Vielgerufener, die gedeihend Schätze (zum Verschenken) erlangt haben, o Schätzereicher!'

'nindyó vṛjáne soma
 irreproachable-NOM sacrificial.field-LOC Soma-VOC
jāgrhi //
 wake-2.SG.PRF.IMP
 'Move into our voices to live well! Wake irreproachably over
 the sacrificial field'⁸⁵ (RV IX 82.4)

Other possible cases include (RV I 97.1, V 33.7). In these cases, the Perfect Imperative forms *cākandhi* 'be pleased with!' and *jāgrhi* 'be awake!' may be taken to express that the speaker exhorts the addressee to be in a state of the type implied by the verb. Although comparable instances admittedly are few, examples like these may be taken to indicate that the Perfect Imperative is compatible with the implicature that event time precedes reference time ($t_E < t'$).

This impression is strengthened when other data are taken into account. Above all, Perfect Imperative forms of other types of telic predicates occasionally seem to be used with a resultative-like meaning. Consider the following examples:

- (217) a. bādhasva dūré nírṛtiṃ parācāiḥ
 drive.away-2SG.PRS.IMP far Nirṛti-ACC away
 kṛtām cid énaḥ prá *mumugdhy* asmát //
 made-ACC even sin-ACC forth release-2SG.PRF.IMP
 'Drive away Nirṛti (the goddess of death), drive her far away!
 Have even the committed sin removed from us!'⁸⁶ (RV I
 24.9cd)
- b. nú me bráhmāṇy agna úc
 now I-GEN prayers-ACC Agni-VOC up
 chaśādhi
 instruct-2SG.PRF.IMP
 tvám deva maghávadbhyaḥ suṣūdaḥ /
 you-NOM god-VOC generous-DAT sweeten-2SG.PRF.SBJ

⁸⁵ Cf. Geldner (1951c: 75): 'Unter Gesangesstimmen zieh (in uns) ein zum Leben! Wache untadelhaft über dem Opferbund, o Soma!'

⁸⁶ Cf. Geldner (1951a: 25): 'Jage weit in die Ferne die Todesgöttin! Auch die getane Sünde nimm von uns!'

‘Have my prayers brought up now, O Agni! You shall have sweetened (them) for the generous ones!’⁸⁷ (RV VII 1.20ab)

Other possible examples include (RV I 3.6, II 32.6, III 40.5, X 101.11, X 132.6). In these cases, the Perfect Imperative forms *mumugdhi* ‘have released!’ and *śāsādhi* ‘have instructed!’ may be taken to express an exhortation to the addressee to see to it that the state resulting from the completion of the events denoted by the predicates *PRA-MOC- énas* ‘remove the sin’ and *UD-ŚĀŚ- me bráhmāṇi* ‘bring my prayers up!’ comes to pass. If my interpretation of the passages in (217) is correct, it would seem to provide yet another indication that the Perfect Imperative is compatible with the implicature that event time precedes reference time ($t_e < t'$).

Finally, we may note that Perfect Imperative forms of atelic verbal predicates in some cases appear to be used to exhort the addressee to continue a situation throughout the reference time interval, which may or may not include evaluation time. Consider the following examples:

- (218) a. mādhyam̐dinasya sávanasya dhānāḥ
 of.midday-GEN pressing-GEN grains-ACC
 puroḷāśam indra kṛṣva ~
 rice.cake-ACC Indra-VOC make.for.one’s.self-2SG.AOR.IMP
 ihá cārum /
 here dear-ACC
 prá yát stotá jaritá
 forth when praiser-NOM singer-NOM
 túrṇyartho
 reaching.his.aim.quickly-NOM
 vṛṣāyámāṇa úpa gīrbhír ítte //
 being.eager-NOM to songs-INS implore
 tṛtíye dhānāḥ sávane puruṣṭuta
 third-LOC grains-ACC pressing-LOC much.invoked-VOC
 puroḷāśam āhutaṁ māmahasva
 rice.cake-ACC offered-ACC be.generous-2SG.PRF.IMP
 naḥ /
 we-DAT

⁸⁷ Cf. Geldner (1951b: 181): ‘Nun lehre uns recht die erbaulichen Reden, o Agni, mache du sie den Lohnherren angenehm, o Gott!’

elling evidence against this hypothesis, it does seem justified after all. In fact, the assumption that the Perfect Imperative denotes the anterior aspect would seem to provide a straightforward explanation for the fact that forms of this type are rather scarcely attested in Early Vedic. As an Imperative category with anterior aspectual semantics would represent a semantically very specific category, one would expect it to be compatible with a far narrower range of context types than corresponding modal forms with a neutral or perfective aspectual meaning. Given that the other categories of the Perfect Stem denote the anterior aspect, the relative scarcity of Perfect Imperative forms in Early Vedic could be taken to reflect indirectly that it has a basic anterior character.

In the examples we have seen so far, the Perfect Imperative appears to be used to denote a single, specific situation, implying that the cardinality of the situation is one ($|e|=1$). I have found no unambiguous examples of Perfect Imperative forms with a multiple event reading and, although this could be due to an accidental gap in the corpus, given that this category is so scarcely attested, I take this fact at face value. The semantic properties of the Perfect Imperative may be formally represented in the following manner:

$$(219) \text{ [DIR}_{\text{MP}} \oslash [\text{TP} \oslash [\lambda t'. \lambda x. \lambda \text{TDL}. \exists e (\text{TDL}(x) \subseteq e \wedge t_e(e) \leq t' \wedge |e|=1)]]]$$

Before concluding the discussion of the Non-Indicative Modal Categories of the Perfect Stem, we shall briefly examine the semantic properties of the Perfect Injunctive. Although Injunctive forms of the Perfect Stem are also rarely attested, Perfect Injunctive forms can be shown to be used in assertive as well as negative directive or prohibitive clauses, just like the Injunctive forms of the Present and Aorist Stems. I will first briefly discuss the use of the Perfect Injunctive in non-prohibitive clauses and then turn to its use in prohibitive clauses.

Like the Injunctive forms of the other primary stems, Perfect Injunctive forms are compatible with present and past time reference, as illustrated by the following examples:

- (220) a. *ahám tá víśvā cakaram*
 I-NOM these.ACC all-ACC make-1SG.PRF.INJ
nákir mā
 nobody-NOM I-ACC

dáivyaṃ sáho varate
 divine-NOM power-NOM obstruct-3SG.PRS
 ápratītam /
 invincible-ACC

‘I have accomplished all these (deeds). No divine power obstructs me, the invincible’⁹⁰ (RV IV 42.6ab)

b. ávaḥ kútsam indra yásmiñ
 help-2SG.IPF Kutsa-ACC Indra-VOC who-LOC
 cākān
 be.pleased-2SG.PRF.INJ
 právo yúdhyaṇtām vṛṣabhām
 support-2.SG.IPF fight-PRS.PRT.ACC bull-ACC
 dáśadyum /
 Daśadyu-ACC

‘You helped Kutsa by whom you were pleased. You supported the fighting bull Daśadyu’⁹¹ (RV I 33.14ab)

The Perfect Injunctive form *cakaram* ‘I have accomplished’ in the first example appears to be used with a present resultative reading, expressing that the state resulting from the completion of the event denoted by the predicate *KAR-* *tá víśvā* ‘accomplish all these (things)’ holds at the time of the utterance. The Perfect Injunctive form *cākan* ‘you be pleased’ in the second example, on the other hand, may be taken to have past time reference, as indicated by the Imperfect forms *ávas* ‘you helped’ and *právas* ‘you supported’. There appear to be no clear-cut examples of Perfect Injunctive forms with future time reference, nor have I found any unambiguous examples of Perfect Injunctive forms in positive directive clauses.

In addition, the examples in (220) illustrate that the Perfect Injunctive is compatible with two of the readings by now characteristic of the Perfect Paradigm, the resultative reading associated with telic predicates and the stative reading associated with instantaneous achievement predicates. In (221) we provide some more examples of each of these readings:

⁹⁰ Cf. Geldner (1951a: 474): ‘Ich habe das alles getan; keine göttliche Macht hält mich, den Unwiderstehlichen, auf.’

⁹¹ Cf. Geldner (1951a: 40): ‘Du Indra nahmst für Kutsa, an dem du Wohlgefallen fandest, Partei; du halfst dem kämpfenden Stier Daśadyu.’

- (221) a. *itthā hí sóma ín máde*
 this for soma-LOC indeed intoxication-LOC
brahmā cakāra vārdhanam /
 priest-NOM make-3SG.PRF strengthening-ACC
śaṣṭha vajrinn ójasā
 strongest-VOC mace.holder-VOC power-INS
pr̥thivyā nīḥ śaśā āhim
 earth-ABL out instruct-2SG.PRF.INJ dragon-ACC
 ‘For thus, in soma, in intoxication, the priest has made a
 strengthening (prayer); O strongest one, holder of the mace,
 with (your) strength you have expelled the dragon from the
 earth’⁹² (RV I 80.1a–d)
- b. *abhí krátvā~ indra bhūr ádha*
 to insight-INS Indra-VOC become-2SG.AOR.INJ then
jmán
 earth-LOC
ná te vivyañ mahimānañ
 not you-GEN encompass-3SG.PRF.INJ greatness-ACC
rājāṃsi /
 heavenly.spaces-NOM
 ‘Then you were superior with regard to insight on earth. The
 heavenly spaces have not encompassed your greatness’⁹³ (RV
 VII 21.6ab)
- c. *kathā ta etád ahám á*
 how you-GEN this-ACC I-NOM to
 perceive-1SG.PRF.INJ
ciketaṃ
gr̥tsasya pākas taváso manīṣām /
 clever-GEN simple-NOM strong-GEN thought-ACC
 ‘How should I, a simple (man), understand this thought of
 yours, of the clever, of the strong’⁹⁴ (RV X 28.5ab)

⁹² Cf. Geldner (1951a: 102): ‘Denn also hat bei Soma in der Begeisterung der Hohepriester ein Erbauungslied gedichtet. Du mächtigster Keulenträger hast mit Kraft den Drachen erschlagen.’

⁹³ Cf. Geldner (1951b: 201): ‘An Umsicht wardst du da auf Erden überlegen, Indra; deine Größe fassen die Weltraumen nicht.’

⁹⁴ Cf. Geldner (1951c: 172): ‘Wie soll ich dies (Wort) von dir verstehen, den Sinn des Klugen, Starken, ich der Einfaltige?’

- d. váne ná vā yó ny
 wood-LOC not or who-NOM down
 àdhāyi cākāñ
 be.placed-3SG.AOR be.pleased-3SG.PRF.INJ
 chúcir vām stómo
 pure-NOM you.two-ACC praise-NOM
 bhuraṇāv ajīgaḥ /
 moving.quickly-VOC awake-3SG.AOR
 'He who is pleased or not by wood has been appointed; a
 pure song of praise has awoken you two, O you who are
 moving quickly'⁹⁵ (RV X 29.1ab)

In these examples, the Perfect Injunctive forms *śaśās* 'you have instructed' and *vivyak* 'has encompassed' seem to be used with a resultative meaning, whereas the forms *ciketam* 'I understand' and *cākāñ* 'he likes' have a stative reading. The fact that Perfect Injunctive forms of accomplishment predicates like *NIS-ŚĀS- áhim pṛthivyās* 'expell the dragon from the earth' and *VYAC- te mahimānam* 'encompass your greatness' have a resultative reading, whereas corresponding forms of instantaneous achievement predicates tend to assume a stative reading, strongly suggests that the Perfect Injunctive is compatible with the implicature that event time precedes reference time ($t_E < t'$).

Significantly, Perfect Injunctive forms of atelic predicates tend to express that a situation of the type named by the predicate has already been going on for some time at evaluation time. Consider the following examples.

- (222) a. paśvāyantrāso abhí kārām
 whose.herd.is.free.from.barriers-NOM to hymn-ACC
 arcan
 sing-3PL.PRS.INJ
 vidānta jyótiś cakṛpānta
 find-3PL.AOR.INJ light-ACC long-3PL.PRF.INJ
 dhībhīḥ //
 prayers-INS

⁹⁵ Cf. Geldner (1951c: 173): 'Eingesetzt ist er, der am Holz oder nicht Wohlgefallen hat—das reine Loblied hat euch beide, ihr zwei Wanderer, geweckt.'

‘Those whose herd is free from barriers were singing a hymn of praise. They had found the light, having been longing through their prayers’⁹⁶ (RV IV 1.14cd)

- b. *mitrás* *tán* *no* *váruṇa*
 Mitra-NOM this-ACC we-DAT Varuṇa-NOM
māmahanta
 be.generous-3PL.PRF.INJ
śárma *tokāya*
 protection-ACC offspring-DAT
tānayāya *gopāḥ* /
 belonging.to.one’s.own.family-DAT herdsmen-NOM
má *vo* *bhujema* *anyájātam*
 don’t you-DAT enjoy-1PL.AOR.OPT born.of.another-ACC
éno
 sin-ACC
má *tát* *karma* *vasavo*
 don’t this-ACC make-1PL.AOR.INJ good-VOC
yác *cáyadhve* //
 which-ACC punish-2PL.PRS
 ‘Mitra and Varuṇa, as herdsmen you have been giving this protection to us (and) our offspring. May we not ever suffer a sin done by another! Let us not ever do what thy goodness punish, O good ones!’⁹⁷ (RV VII 52.2)

Another possible example is (RV X 93.12). In these cases, the Perfect Injunctive forms *cakrṇānta* ‘have been longing’ and *māmahanta* ‘you have been generous’ appear to have a universal reading, implying that event time is coextensive with reference time ($t_E=t$). The data in (220), (221) and (222) may thus be taken to indicate that the Perfect Injunctive denotes the anterior aspect ($t_E \leq t$).

⁹⁶ Cf. Geldner (1951a: 415): ‘Als ihre Herde der Schranken ledig war, dangen sie den Siegesgesang; sie fanden das Licht, (nachdem) sie in ihren Gedanken darnach verlangt hatten.’

⁹⁷ Cf. Geldner (1951b: 228): ‘Mitra und Varuṇa, die Hüter, sollen unserem leiblichen Samen diesen Schutz gewähren. Nicht wollen wir anderer Sünde wider euch büßen, noch wollen wir das tun, was ihr Guten bestraft.’

Before concluding this section, we may briefly note that Perfect Injunctive forms are occasionally, albeit very rarely, used in prohibitive sentences, as illustrated by the following examples:

- (223) a. *sóma* *íd* *vaḥ* *sutó*
 Soma-NOM indeed you-DAT extracted-NOM
astu
 be-3.SG.PRS.IMP
kálayo *má* *bibhītana* /
 Kalis-VOC don't fear-3SG.PRF.INJ
áp ~ *íd* *eṣá* *dhvasmá* *ayati*
 away indeed this-NOM pollution-NOM go-3SG.PRS.SBJ
svayám *gha* *eṣó* *ápāyati* //
 self-ACC indeed this-NOM go.away-3SG.PRS.SBJ
 'Indeed, soma shall be extracted for you! O Kalis, do not
 fear! Indeed this pollution will go away, it will go away by
 itself'⁹⁸ (RV VIII 66.15)
- b. *má* *naḥ* *sétuḥ* *siṣed* *ayám*
 don't we-ACC bond-NOM bind-3SG.PRF.INJ this-NOM
mahé *vṛṇaktu* *nas* *pári* /
 great-DAT pass-3SG.PRS.IMP we-ACC round
índra *íd* *dhí* *śrutó*
 Indra-NOM indeed for known-NOM
vaśí //
 having.authority-NOM
 'Don't let this bond continue to have us bound! Let it
 (bring) us to greatness! For you, Indra, are indeed known as
 one having authority'⁹⁹ (RV VIII 67.8)
- c. *má* ~ *āré* *asmád* *ví* *mumuco*
 don't far.away we-ABL apart release-2SG.PRF.INJ
háripriya ~ *arvāñ* *yāhi* /
 fond.of.bay.horses-VOC hitherwards drive-2SG.PRS.IMP
índra *svadhāvo* *mátsva* ~ *ihá* //

⁹⁸ Cf. Geldner (1951b: 389): 'Nur euer Soma soll gepreßt sein! Ihr Kali's verzaget nicht! Dieser Beschmutzer soll sich von dannen heben, von selbst soll er sich von dannen heben!'

⁹⁹ Cf. Geldner (1951b: 390): 'Nicht soll uns diese Fessel fesseln; sie soll uns zu großem (Glück) verschonen. Indra ist als der Machthaber berühmt.'

Indra-VOC faithful-VOC be.inebriated-2SG.AOR.IMP here
 'Don't unyoke far away from us! O you who are fond of bay
 horses, drive hither! Faithful Indra, let yourself become ine-
 bried here!'¹⁰⁰ (RV III 41.8)

Other examples are scarce, I refer to Hoffmann (1967: 74–92) for discussion. In these examples, the Perfect Injunctive forms *bibhītana* 'you fear' and *siṣet* 'it has bound' appear to be used with an 'inhibitive' meaning, expressing that a situation holding at the time of the utterance should be terminated, whereas the form *mumucas* 'you release' in the third example seemingly expresses that a situation not yet holding at the time of the utterance should be avoided.

Given the previous discussion, the inhibitive reading of the prohibitive Perfect Injunctive forms *bibhītana* 'you fear' and *siṣet* 'it has bound' can be straightforwardly accounted for as contextually determined variants of the stative and resultative readings respectively, thus providing additional evidence in favor of the hypothesis that the Perfect Injunctive is compatible with the implicature that event time precedes reference time ($t_E < t'$).

As regards the apparently preventive use of the form *mumucas* 'you release', its relationship to the inhibitive use of the two other Perfect Injunctive forms is not immediately clear. Hoffmann (1967: 83) suggests that the sentence is used to exhort Indra to discontinue a habitually recurring action, thus having an inhibitive rather than strictly preventive reading. An advantage of his analysis is that it ascribes a unitary, inhibitive function to the prohibitive Perfect Injunctive and, more importantly from our perspective, it would seem to furnish some evidence that the Perfect Injunctive is compatible with a universal reading as well as a multiple event reading in this kind of context. Under this analysis, example (223c) would seem to imply that the prohibitive Perfect Injunctive is compatible with the implicature that event time is coextensive with reference time ($t_E = t'$) and that the cardinality of the situation is more than one ($|e| > 1$). Although this clearly would be a desirable finding, as it would justify the conclusion that the Perfect Injunctive has essentially the same aspectual properties as the Perfect Indicative and the other finite

¹⁰⁰ Cf. Geldner (1951a: 384): 'Spann nicht weit von uns aus, komm herwärts du Falbenfreund! Berausche dich hier, o eigenmächtiger Indra!'

categories of the Perfect Paradigm, the heuristic value of the example under discussion is questionable. For one thing, there is nothing in the context suggesting that Indra has the habit of unyoking elsewhere and therefore the assumption that the form has a habitual reading remains stipulative. As there appear to be no unambiguous examples of Perfect Injunctive forms with a multiple event reading, neither in non-prohibitive nor in prohibitive clauses, the form *mumucas* ‘you release’ would represent an isolated case and Hoffmann’s interpretation therefore seems to run a serious risk of circularity. Another more fundamental problem concerns the fact that the thematic Injunctive form *mumucas* is paradigmatically isolated, as there appears to be no other evidence for a thematic stem *mumuca-*, which could be interpreted as derived from the Perfect Stem as well as from a reduplicated Aorist Stem (cf. Kümmel 2000: 381–382). However, as there are no other indications that this verb had a reduplicated Aorist Stem in Early Vedic, I shall adopt the view that the form represents a thematic Injunctive of the Perfect Stem. One way of accounting for its apparent preventive use in (223c) would be to assume that this use is ultimately licensed by the resultative reading of the Perfect Injunctive, expressing that the addressee should see to it that the state resulting from the completion of the event denoted by the verbal predicate does not come to pass in the future.

These considerations suggest that the Perfect Injunctive denotes the anterior aspect and is mainly used with a single event reading. As forms of this type are very scarcely attested, the fact that there are no examples of Perfect Injunctive forms with a multiple event reading could be due to an accidental gap in the corpus. Nevertheless, I choose to take this distributional pattern at face value, assuming that the semantic properties of the Early Vedic Perfect Indicative can be formally represented in the manner set forth in (224):

$$(224) [\lambda P.\lambda t'.\exists e(t_E(e)\leq t' \wedge |e|=1 \wedge P(e)=T)]$$

5.4 *The Perfect Participle*

In this section we examine the semantic properties of the Early Vedic Perfect Participle. Significantly, an informal count based on the lists in Macdonell (1910) shows that Perfect Participle forms are almost

twice as type frequent as Aorist Participle forms (138/75), a relative frequency significantly different from the Non-Indicative Moods of these two stems. Like the Participle forms of the other primary stems, the Perfect Participle is indifferent to absolute tense values. It is compatible with present, past and future time reference, as illustrated by the following examples:

- (225) a. *úpa kṣaranti síndhavo mayobhúva*
 toward flow-3PL.PRS rivers-NOM delightful-NOM
ījānām ca yakṣāmāṇam
 sacrifice-PRF.PRT.ACC and sacrifice-FUT.PRT.ACC
ca dhenávaḥ /
 and milch.cows-NOM
 ‘Delightful rivers and milch cows flow towards him who has sacrificed and will sacrifice’¹⁰¹ (RV I 125.4ab)
- b. *uśānā yāt sahasyair áyātaṁ*
Uśanas-NOM when strong-INS go-2DU.IPF
grhām indra jūjvānébhir
home-ACC Indra-VOC be.set.in.motion-PRF.PRT.INS
áśvaiḥ /
horses-INS
vanvānó átra saráthaṁ
defeat-PRS.PRT.NOM then in.the.same.wagon
yayātha
go-2SG.PRF
kútsena deváir ávanor ha śúṣṇam //
Kutsa-INS gods-INS defeat-2SG.IPF indeed Śuṣṇa-ACC
 ‘When you and Uśanas were going home with the strong horses that had been set in motion, then you have come as a conqueror in the same wagon as Kutsa. Indeed, together with the gods you defeated Śuṣṇa’¹⁰² (RV V 29.9)

¹⁰¹ Cf. Geldner (1951a: 174): ‘Erquickend strömen dem die Flüsse, dem die Milchkühe, der geopfert hat und opfern wird.’

¹⁰² Cf. Geldner (1951b: 26): ‘Als ihr beide, Kutsa und du, Indra, mit den gewaltigen raschen Rossen zu Usanas Haus kamt, da kamst du der Überwinder auf gleichem Wagen mit Kutsa, mit den Göttern. Du hattest den Susna überwunden.’

- c. devó bhuvan návedā ma
 god-NOM become-3SG.AOR.SBJ aware-NOM me-GEN
 ṛtānām
 righteous.deeds-GEN
 námo jagṛbhvāñ abhí yáj
 adoration-ACC accept-PRF.PRT.NOM around when
 jújoṣat //
 enjoy-3SG.PRF.SBJ
 ‘The god will become aware of my deeds, when he having
 accepted my adoration will enjoy (it)’¹⁰³ (RV IV 23.4cd)

In the first example, the Present Indicative form *kṣaranti* ‘they flow’ has a habitual reading, expressing a generalization which is valid at the time of the utterance. The Perfect Participle form *ijānam* ‘having sacrificed’ picks up its reference time from the main verb, denoting a situation which has been terminated prior to that time. In the second example the Imperfect form *áyātam* ‘you two went, were going’ unambiguously introduces a past reference time, which serves as the temporal anchor of the Perfect Participle form *jūjuvānébhis* ‘having been set in motion’. Finally, in the last example, a future reference time is introduced by the Aorist Subjunctive form *bhuvan* ‘he will become’, which indirectly serves to locate the situation denoted by the Perfect Participle form *jagṛbhvāñ* ‘having accepted’.

In the following, I examine the aspectual properties of the Early Vedic Perfect Participle (cf. also Kümmel 2000: 91–92). Firstly, we may note that Perfect Participle forms of instantaneous achievements tend to have a stative reading, as illustrated by the following examples (cf. also example (225b) above):

- (226) a. prātā rátnam prātarítvā
 in.the.morning gift-ACC morning.guest-NOM
 dadhāti
 bring-3SG.PRS

¹⁰³ Cf. Geldner (1951a: 449): ‘Der Gott nehme meiner rechten Worte wahr, die Huldigung annehmend, an der er seine Freude haben wird.’

tāṃ cikitvān pratigrhā ní
 he-ACC perceive-PRF.PRT.NOM receive-ABS down
 dhatte /
 place-3SG.PRS.MID
 'In the morning, the morning guest brings a gift. Having
 received it he who knows places it down for himself'¹⁰⁴ (RV
 I 125.1ab)

b. sā no bodhi sahasya
 that we-DAT become-2SG.AOR.IMP mighty-VOC
 praśāṃsyo
 praiseworthy-NOM
 yāsmiṃ sujātā iṣāyanta sūrāyaḥ /
 who-LOC well.born-NOM refresh-3.PL.PRS sage-NOM
 yām agne yajñām upayānti
 which-ACC Agni-VOC sacrifice-ACC go.towards-3PL.PRS
 vājīno
 winners-NOM
 nītye toké didivāṃsaṃ
 own-LOC offspring-LOC become.bright-PRF.PRT.NOM
 své dāme //
 own-LOC house-LOC
 'Become that praiseworthy one for us, O you who are
 mighty, in whom the well-born sages refresh themselves,
 Agni, towards whom the winners go when you are shining
 in your own offspring, your own house'¹⁰⁵ (RV II 2.11)

Other examples include (RV II 9.1, II 34.7, II 35.3, III 5.2, III 13.5, IV 16.15, V 3.10, X 54.16). In these examples, the Perfect Participle forms *cikitvān* 'knowing, having found out' and *didivāṃsam* 'being bright, having become bright' denote a state which holds at the reference time furnished by the Present Indicative forms *ní dhatte* 'he places down for himself' and *upayānti* 'they go towards'. This reading of the Perfect Participle corresponds exactly to the present state

¹⁰⁴ Cf. Geldner (1951a: 174), who translates the Perfect Participle form as an adjective: 'Der Morgengast bringt am Morgen ein Kleinod. Der Verständige, der ihn aufnimmt, legt sich einen Schatz zu.'

¹⁰⁵ Cf. Geldner (1951a: 279): 'Sei du unser Preislicher, du Gewaltiger, von dem die edlen Gönner die Nutznießung haben, zu dem die Sieger zum Opfer kommen, o Agni, der im eigenen Hause bei leiblichen Kindern leuchtet!'

reading of the Perfect Indicative and may be taken as an indication that the Perfect Participle is compatible with the implicature that event time precedes reference time ($t_E < t'$).

Secondly, we may note that Perfect Participle forms of other types of telic predicates tend to have a markedly resultative meaning. Consider, for instance, the following examples:

- (227) a. *arvāk* *pathá* *urujrayaḥ*
 hitherwards ways-ACC broadly.extending-ACC
kr̥ṇudhvaṃ
 make-2PL.PRS.IMP
śrótā *dūtāsya*
 listen-2PL.AOR.IMP messenger-GEN
jagmúšo *no* *asyá* //
 come-PRF.PRT.GEN we-ACC this-GEN
 ‘Make your broadly extended ways hitherwards, listen to the messenger who has come’¹⁰⁶ (RV VII 39.3cd)

- b. *śatām* *meṣān* *vṛkyè* *caḥṣadānām*
 hundred rams-ACC she.wolf-DAT prepare-PRF.PRT.ACC
ṛjṛāśvaṃ *tām* *pitā* *andhām*
Ṛjṛāśva-ACC that-ACC father-NOM blind-ACC
cakāra /
 make-3SG.PRF
tāsmā *akṣī* *nāsatyā* *vicākṣa*
 he-DAT eyes-ACC Nāsatyas-VOC see.distinctly-INF
ādhattaṃ *dasrā* *bhiṣajāv*
 place-2DU.IPF giving.marvellous.aid-VOC healers-VOC
anarván //
 irresistibly
 ‘The father blinded *Ṛjṛāśva* who had prepared one hundred rams for the she-wolf. O *Nāsatyas*, you two healers who irresistibly give marvellous aid, gave him eyes to see distinctly’¹⁰⁷ (RV I 116.16ab)

¹⁰⁶ Cf. Geldner (1951b: 221): ‘Nehmet eure Wege hierher in breitem Laufe; höret auf diesen Boten von uns, der gekommen ist!’

¹⁰⁷ Cf. Geldner (1951a: 155): ‘Den *Rijrasva*, der der Wölfin hundert Schafböcke aufstichte, hatte sein Vater blind gemacht. Ihm verleiht ihr *Nasatya*’s zwei unvergleichliche Augen zum Sehen, ihr Meister-Ärzte.’

- c. etá víśvā cakṛvām̐
 these-ACC all-ACC make-PRF.PRT.NOM
 indra bhūry
 Indra-VOC many-ACC
 áparīto janúsā vīryèṇa /
 invincible-NOM birth-INS strength-INS
 yá cin nú vajrin
 which-ACC even now mace.holder-VOC
 kṛṇávo dadhṛṣvān
 make-2SG.PRS.SBJ dare-PRF.PRT.NOM
 ná te vartā táviṣyā
 not you-GEN warding.off-NOM courage-GEN
 be-3SG.PRS tásyāḥ //
 asti this-GEN
 ‘Having accomplished all these many (deeds) you, invincible
 by birth (and) strength, whichever (deeds) you now will
 make, daring, there will not be anybody warding off this
 courage of yours’¹⁰⁸ (RV V 29.14)

Other examples include (RV I 117.18, I 161.4, IV 17.1, IV 24.4, V 32.2, VI 17.13, VIII 60.19). In the first example, the Present Imperative form *śrótā* ‘listen!’ indicates that the Perfect Participle form *jagmúṣas* ‘having come’ has a resultative reading, expressing that the state resulting from the completion of the event holds at reference time. The Perfect Participle form *caṣṣadānām* ‘having prepared’¹⁰⁹ in the second example may be taken to have a similar meaning, expressing that the father of Ṛjṛāśva blinded him as a consequence of his having presented a she-wolf goddess with an overly rich sacrifice.¹¹⁰ In the last example, the Perfect Participle form *cakṛvām̐* ‘having made’

¹⁰⁸ Cf. Geldner (1951b: 26): ‘Nachdem du, Indra, diesen vielen (Taten) getan hast, schon bei der Geburt an Heldenkraft unerreicht, gibt es keinen, der deiner Kraft wehren wird, was du auch wagemutig noch tun wirst, du Keulenträger.’

¹⁰⁹ Gotō (1987: 122–124) discusses the lexical semantics of this verb and suggests that its meaning is ‘(Speise) auftischen.’

¹¹⁰ Cf. also the following passage, where this interpretation seems even more likely:

śátām	meṣān	vṛkíye	māmahānām
hundred	rams-ACC	she.wolf-DAT	give-PRF.PRT.ACC.SG
tāmaḥ	prāṇītam	ásivena	pitrá
darkness-ACC	conducted-ACC.SG	angry-INS.SG	father-INS

likewise seems to have a resultative reading. The fact that Perfect Participle forms of telic predicates tend to have a markedly resultative reading may be taken to imply that the Participle of the Perfect Paradigm is compatible with the implicature that event time precedes reference time ($t_E < t'$).

Perfect Participle forms of unambiguously atelic predicates are less common than those of telic predicates and are typically used to express that the situation denoted by the verbal predicate has been going on for a while, as illustrated by the following examples.

- (228) a. *dáśa māsāñ chaśayānāḥ kumāró ádhi*
 ten months-ACC lying-PRF.PRT.NOM boy-NOM on
mātári /
 mother-LOC
niráitu jīvó ákṣato
 go.off-3SG.PRS.IMP living-NOM unbroken-NOM
jīvó jīvantyā ádhi //
 living-NOM living-ABL from
 ‘Having been lying in his mother for ten months, the living,
 unbroken, living boy shall come forth from the living one!’¹¹¹
 (RV V 78.9)
- b. *rákṣā ṇo agne táva*
 protect-2SG.PRS.IMP we-ACC Agni-VOC you-GEN
rákṣaṇebhi
 acts.of.protection-INS

ákṣí rjráśve aśvināv adhattam
 eyes-ACC.DU Rjráśva-LOC Aśvins-VOC.DU put-2.DU.IPF
vyótir andhāya cakrathur vicákṣe
 light-ACC blind-DAT.SG make-2.DU.PRF see.distinctly-INF

‘Having given hundred rams to the she-wolf, he was conducted into darkness by his angry father: O Aśvins, you put two eyes in Rjráśva, you made light for the blind to see’ (RV I 117.17). Cf. Geldner (1951a: 159): ‘Hundert Widder hatte er der Wölfin gespendet und war durch seinen bösen Vater in die Nacht der Blindheit geführt: Ihr Asvin gabt dem Rjrasva die Augen, ihr machtet dem Blinden Licht zum Sehen.’

¹¹¹ Cf. Geldner (1951b: 83): ‘Nachdem der Knabe zehn Monate in der Mutter gelegen hat, soll er lebendig, unversehrt, lebendig aus der Lebenden herauskommen!’

rāraḁṣāṇāḥ *sumakha* /
 protect-PRF.PRT.NOM very.joyous-VOC
prīṇānāḥ
 become.content-PRS.PRT.NOM
 ‘Protect us, O Agni, with your protective deeds, being content that you have been protecting us having been protecting us, O Joyous one!’¹¹² (RV IV 3.14ab)

Other possible examples include (RV I 3.6, I 85.10, II 8.2, VI 7.8, VI 29.5, VI 47.1). In these examples, the Perfect Participle forms *śaśayānās* ‘having lain, having been lying’ and *rāraḁṣānās* ‘having protected, having been protecting’ may be plausibly taken to have a continuous or universal reading. In the first example, this is entailed by the durative temporal adverb *dāśa māśān* ‘for ten months’; in the second example the immediate context suggests that a continuous reading is intended. The fact that Perfect Participle forms are associated with this reading implies that it is compatible with the implicature that event time is coextensive with reference time ($t_E = t'$). Taken together with the data discussed previously in this section, this finding suggests that the Perfect Participle denotes the anterior aspect ($t_E \leq t'$).

Before concluding the discussion of the semantic properties of the Perfect Participle, I would like to draw attention to the fact that Perfect Participle forms are occasionally modified by universal or iterative temporal adverbs, as illustrated by the examples in (229):

- (229) a. *asmín* *padé* *paramé* *tasthivāṁsam*
 this-LOC site-LOC most.distant-LOC stand-PRF.PRT.ACC
adhvasmábhīr *viśvāhā* *ḁḁivāṁsam* /
 not.polluted-INS always begin.to.shine-PRF.PRT.ACC
āpo *nāptre* *ghṛtām* *ānnaṃ*
 waters.NOM offspring-DAT ghee-ACC food-ACC
vāhantīḥ
 carry-PRS.PRT.NOM
svayām *átkaīḥ* *pāri* *dīyanti* *yahvīḥ* //
 self garments-INS around soar-3PL.PRS youthful-NOM

¹¹² Cf. Geldner (1951a: 421): ‘Schütz uns, Agni, mit deinen Schutzmitteln schützend, wenn du befriedigt bist, du Freiebiger!’

‘Him, who has been standing in the most distant site and who always shines with pure (flames), the youthful waters soar around, (dressing) themselves with garments while they bring ghee as food to their offspring’¹¹³ (RV II 35.14)

- b. *vā́* *ṇá* *tvā́* *yavyā́bhir*
 water-ACC like you-ACC streams-INS
várdhanti *śūra* *bráhmāṇi* /
 strengthen-3PL.PRS hero-VOC prayers-NOM
vāṽṛdhvā́ṁsam *cid* *adrivo*
 grow.strong-PRF.PRT.ACC even lord.of.the.rock-VOC
 divé-divé //
 day.by.day
 ‘You, O hero, the prayers strengthen like a water (strengthened) through streams, even though you have been growing stronger day by day, O lord of the rock’¹¹⁴ (RV VIII 98.8)

Other examples include (RV I 136.3, II 18.8, VI 1.3, X 88.14). In these cases, the adverbs *viśvā́hā* ‘always’ and *divé-divé* ‘day by day’ indicate that the Perfect Participle forms *dīdivā́ṁsam* ‘shining’ and *vāṽṛdhvā́ṁsam* ‘have been growing stronger’ have a multiple event reading. Examples like these indicate that the Perfect Participle is compatible with the implicature that the cardinality of the situation is more than one ($|e| > 1$). The data discussed in this section indicate that the Perfect Participle denotes the anterior aspect and that it is vague between a single and a multiple event reading, as summarized by the formal representation in (230):

$$(230) [\lambda P. \lambda t'. \exists e(t_E(e) \leq t' \wedge |e| \geq 1 \wedge P(e) = T)]$$

¹¹³ Cf. Geldner (1951a: 323): ‘Ihn, der an diesem fernsten Orte seinen Stand hat, der allezeit mit fleckenlosen (Flammen) leuchtet und sich selbst mit Gewändern (bekleidet), umschweben die jüngsten Gewässer, indem sie dem (Apām) Napāt ihr Schmalz als Speise bringen.’

¹¹⁴ Cf. Geldner (1951b: 426): ‘Dich, o Held, machen die feierlichen Reden noch größer wie ein Gewässer durch Bäche, obwohl du Tag für Tag größer geworden bist, du Herr des Preßsteins.’

5.5 *The Aspectual Reference of the Perfect Stem*

In sections 5.1 through 5.4, I have examined the various readings associated with the Perfect Indicative, the Pluperfect, the non-indicative modal categories of the Perfect Paradigm and the Perfect Participle. The data discussed in these sections indicate that the various inflectional categories belonging to the Present Stem have three aspectual readings in common: a stative reading, a resultative reading and a universal reading. Within the framework developed in Chapter One the fact that the Perfect Paradigm shows exactly this set of readings may be straightforwardly accounted for by assuming that it denotes the anterior aspect and that each of these readings represents a contextually determined variant of the basic aspectual relation denoted by the anterior aspect, as schematically represented in Figure 5.3 below:

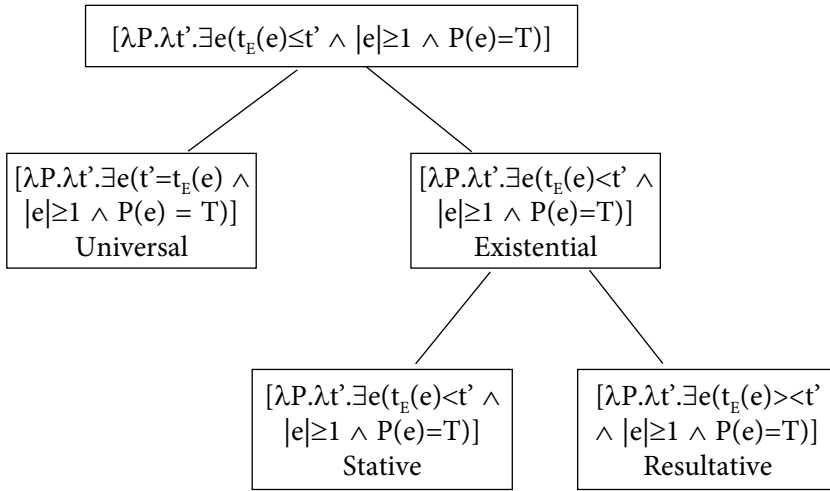


Figure 5.3: The readings associated with the Early Vedic Perfect Paradigm

CONCLUSION

In the course of this book I hope to have shown that a framework based on concepts from theoretical semantics and insights from linguistic typology provides a set of useful analytical tools for exploring the semantic properties of grammatical categories in dead languages. The investigation presented here has been motivated by a wish to understand the semantic principles underlying the distribution of the verbal categories in the Rigveda. The data considered in Chapters Three through Five strongly suggest that aspect constitutes a grammatically relevant semantic dimension in Early Vedic. Specifically, it has been argued that the Present, Aorist and Perfect Paradigms can each be assigned a fixed meaning, the Present denoting the neutral aspect ($t' \otimes t_e$), the Aorist denoting the perfective aspect ($t_e \subseteq t'$) and the Perfect denoting the anterior aspect ($t_e \leq t'$), and that their basic aspectual meaning combines with tense and mood operators in a predictable way. The different aspectual specifications were shown to give rise to different sets of lexically and contextually determined readings. These findings indicate that the Early Vedic verbal system is more archaic than usually thought and that it is typologically more similar to the Ancient Greek past tense system than to the verbal system found in later stages of Vedic.

In Chapter One it was suggested that the functional range of a given language-specific tense/aspect/mood category is partly determined by its inherent semantic properties and partly by system-dependent constraints, that is, restrictions imposed by other categories along the same semantic dimension. Throughout this work I have been assuming that these restrictions can be analyzed in terms of binary privative oppositions where a semantically specific or 'marked' category of a given type competes with a semantically more general or 'unmarked' category of a similar type. In the following, I outline an account of the Early Vedic tense/aspect/mood system with particular emphasis on temporal and aspectual competition between the various verbal categories.

At this point it may be convenient to explain briefly how the notions of temporal and aspectual competition are understood within

the framework adhered to in this work. Recall from the discussion in Chapter One that the various postulated temporal and aspectual categories are taken to be associated with a unique cluster of lexically and contextually determined readings. A reading that serves to distinguish two typologically distinct categories was characterized as typologically relevant. However, it was also noted that two or more typologically distinct categories may have one or more readings in common. A case in point concerns the alternating use of the English Past Progressive and Simple Past to express the progressive-processual relation in certain context types, alluded to in Chapter One, which may be illustrated by the following examples:

- (231) a. Then, as he was crossing the road with a friend, he was hit by a car (Internet)¹
- b. Bogdanovic sat fuming in his car outside the club in Tollcross, then drove at John as he crossed the road on his way home (Internet)²

Note that these examples in fact refer to exactly the same event and, moreover, are taken from the same source. They thus are particularly illustrative as they show that the Past Progressive and Simple Past not only can be alternately used in the same context type but can even be used to refer to the same situation.

The theoretically important point here is that two morphologically distinct categories with overlapping semantic properties can be alternately used in context types where both are acceptable. In cases like this, competition arises between the two partially equivalent morpho-syntactic expressions and it is reasonable to assume that this kind of competition is governed by different types of constraints in an Optimality Theoretic fashion. For example, in many of the examples discussed previously in this work, I have taken for granted that a semantically specific category of a given type will tend to block other

¹ <http://www.dailyrecord.co.uk/news/scottish-news/2009/07/24/i-had-to-give-up-career-as-naked-butler-because-of-scar-on-bum-murder-bid-victim-tells-court-86908-21543858/>

² <http://www.dailyrecord.co.uk/news/scottish-news/2009/09/03/driver-jailed-for-running-down-naked-butler-after-nightclub-bust-up-86908-21644415/>

semantically more general categories from appropriate contexts. Among other things, this assumption would seem to imply that a semantically specific category like the English Past Progressive as a rule represents a more optimal expression than the semantically less specific Simple Past and hence would tend to be preferred to the latter in contexts like the one cited in (231). A dynamic along these lines would ultimately be motivated by a principle akin to the first part of Grice's well-known Maxim of Quantity prescribing that a contribution should be as informative as possible. Note, however, that other, conflicting constraints may also apply, above all a principle similar to the second part of Grice's Maxim of Quantity, that a contribution should not be more informative than necessary (cf. Mey 2001: 72). In a minimal model of communication where only these two principles apply, a category conforming to both of them relative to a given context type would represent an optimal expression and all other categories would be suboptimal to a greater or smaller extent, depending on whether they violate one or both of these principles relative to the context type under consideration.

With these general considerations in mind, we may now turn to a discussion of temporal and aspectual competition in the Early Vedic verbal system. The relationship between the Present Indicative and the Perfect Indicative represents a convenient point of departure. In the course of the discussion in Chapters Three and Five it was noted that the Present Indicative is compatible with retrospective present and strictly present as well as prospective present time reference, whereas the Perfect Indicative is inherently associated with retrospective present time reference and hence *a priori* excluded from many contexts where the Present Indicative is used. As regards present time reference then, the Perfect Indicative may be taken to pick out a principled subset of the readings associated with the Present Indicative, namely those in which a retrospective time reference is intended. The temporal difference between the Perfect Indicative and the Present Indicative may accordingly be analyzed in terms of a binary privative opposition, where the Perfect Indicative represents the marked member and the Present Indicative represents the unmarked member. Among other things, this analysis would provide a straightforward account of the fact that these two categories are interchangeable in certain contexts, as illustrated by the examples in (232).

- (232) a. *sanā́d* evá dasyuhátyāya *jajñīṣe* //
 old-ABL so enemy.smiting-DAT be.born-3SG.PRF
 ‘So from ancient times you have been destined for smiting
 enemies’³ (RV I 51.6d)
- b. *sanā́t* sá yudhmá ójasā
 old-ABL he-NOM warrior-NOM strength-INS
panasyate //
 exite.admiration-3SG.PRS
 ‘From ancient times he has impressed (people) with his
 strength’⁴ (RV I 55.2d)

These examples illustrate that the Perfect Indicative and the Present Indicative are both compatible with the adverb *sanā́t* ‘from of old’. Significantly, the Present Indicative is considerably more frequently modified by this particular adverb than the Perfect Indicative. The constellation in (232a) is attested only once in the Rígvēda, whereas the constellation in (232b) is found about fifteen times.⁵ Throughout this work I have repeatedly suggested that semantically specific categories tend to be preferred to semantically more general categories in appropriate contexts. In the present case, however, we seem to find exactly the opposite distribution, the semantically more general Present Indicative being more frequently met with than the semantically more specific Perfect Indicative in retrospective present contexts of the type illustrated in (232). At first glance, these data indicate that we should either reconsider the analysis of the relationship between these two categories or that we should discard the general assumption about morphosyntactic blocking.

However, a more careful consideration of other pertinent data suggests that this conclusion may be somewhat premature. Most notably, Perfect Indicative forms tend to be associated with a present retrospective time reference even in cases where there is no explicit adverbial modifier. Consider the following examples, by now familiar from the previous discussion.

³ Cf. Geldner (1951a: 63): ‘Vor Alters schon bist du für die Dasyuerschlagung geboren.’

⁴ Cf. Geldner (1951a: 71): ‘Von alters her wird der Streiter wegen seiner Stärke anerkannt.’

⁵ The passages are RV I 55.2, I 62.8;10;12, I 102.8, I 164.14, II 16.1, II 22.1, IV 56.7, VII 32.24, VIII 2.31, VIII 21.13, X 78.8, X 87.19.

- (233) a. *uvāsa* ~ *uṣā* *ucchāc* *ca* *nú*
 shine-3SG.PRF Uṣas-NOM shine-3SG.PRS.SBJ and now
 ‘Uṣas (the Dawn) has (always) shone and will shine now as well’⁶ (RV I 48.3a)
- b. *cakāra* *tā* *kṛṇāvan* *nūnām*
 make-3SG.PRF these-ACC make-3SG.PRS.SBJ now
anyā
 others-ACC
 ‘He has accomplished these things, now he will accomplish others’⁷ (RV VII 26.3a)
- c. *asyā* *pītvā* *mādānām*
 it-GEN drink-ABS intoxicating.drinks-GEN
índro *vṛtrāṇy* *apratí /*
 Indra-NOM enemies-ACC irresistibly
jaghāna *jaghānac* *ca* *nú //*
 smite-3SG.PRF smite-3SG.PRF.SBJ and now
 ‘Having drunk of its intoxicating drinks Indra has irresistibly smitten enemies and will have smitten (enemies) now as well’⁸ (RV IX 23.7)

In these cases, it is reasonable to assume that the Perfect Indicative forms *uvāsa* ‘has shone’, *cakāra* ‘has made’ and *jaghāna* ‘has smitten’ are used to express that one or more instantiations of the situation denoted by the predicate have taken place within an extended now reference time interval. This interpretation is suggested by the immediately following Present Subjunctive forms *ucchāt* ‘will shine’, *kṛṇāvat* ‘will make’ and the Perfect Subjunctive form *jaghānat* ‘will have smitten’ which may be taken to express the expectation that the situation that has held in the past will continue to hold in the future.

In contrast, Present Indicative forms tend not to be associated with a retrospective present reference time interval when they are not

⁶ Cf. Geldner (1951a: 59): ‘Uṣas ist (früher) aufgeleuchtet und die Göttin wird auch jetzt aufleuchten.’

⁷ Cf. Geldner (1951b: 205): ‘Er hat diese (Taten) getan und wird jetzt andere tun.’

⁸ Cf. Geldner (1951c: 25): ‘Wann Indra von dessen Rauschtranken getrunken hat, hat er die Feinde, denen keiner gewachsen war, erschlagen und wird sie noch weiter erschlagen.’

modified by an appropriate adverb. Consider, for instance, the following examples:

- (234) a. *ṛṣiṣṭutā* *jaráyanti*
 praised.by.Ṛṣis-NOM awaken-PRS.PRT.NOM
maghóny
 generous-NOM
uṣá *ucchati* *váhnibhir*
 dawn-NOM shine-3SG.PRS conveyors-INS
grṇānā //
 be.sung-PRS.PRT.NOM
 ‘Praised by the ṛṣis, awakening (the world), liberal dawn
 shines as she is sung by the conveyors (of songs)’⁹ (RV VII
 75.5cd after Jamison 1983a: 127)
- b. *ápa ~ u* *máhi* *vyayati* *cákṣase*
 away and great-ACC cover-3SG.PRS see-INF
támo
 darkness-ACC
jyótiṣ *kṛṇoti* *sūnārī //*
 light-ACC make-3SG.PRS joyous-NOM
 ‘And she uncovers the great darkness that she be seen; the
 joyous one makes/is making light’¹⁰ (RV VII 81.1cd)
- c. *krṣṭír* *anyó* *dhārāyati*
 races.of.men-ACC one-NOM uphold-3SG.PRS
právikṭā
 chosen-ACC
vṛtrāṇy *anyó* *apratīni* *hanti //*
 enemies-ACC one-NOM irresistible-ACC smite-3SG.PRS
 ‘One upholds the races of men, the other smites irresistible
 enemies’¹¹ (RV VII 85.3cd)

⁹ Cf. Geldner (1951b: 249): ‘Von den Ṛṣi’s besungen geht die gabenreiche Uṣas (die Welt) erweckend auf, von den Wortführern gepriesen.’

¹⁰ Cf. Geldner (1951b: 252): ‘Sie zieht die große Finsternis weg, auf daß man sehe; die Edle macht licht.’

¹¹ Cf. Geldner (1951b: 256): ‘Der eine hält die auserwählten Völker in Ordnung, der andere erschlägt die Feinde, denen keiner gewachsen ist.’

These examples illustrate that the Present Indicative is typically used to denote a single specific situation or a habitually recurring situation holding at the time of the utterance, as discussed in Chapter Three.

On the basis of the data cited in (232), (233) and (234) it is tempting to conclude that the retrospective present reading represents the default reading of the Perfect Indicative, whereas the Present Indicative is typically associated with a general present reading but is still compatible with a retrospective present reading when modified by an adverb introducing an extended now interval. These considerations suggest that the Perfect Indicative inherently specifies an extended now reference time ($||\text{PRES}/\text{XN}||$) and that the Present Indicative has a general present time reference ($||\text{PRES}||$). Under this analysis, the relative scarceness of Perfect Indicative forms in contexts like the one cited in (232a) may be interpreted as the result of a general tendency to avoid redundancy.

According to the analysis presented in Chapters Three and Five, the Present Indicative denotes the neutral aspect, predicating a general overlap relation between event time and reference time ($t' \otimes t_e$), whereas the Perfect Indicative denotes the anterior aspect, predicating a partial precedence relation between event time and reference time ($t_e \leq t'$). As these two categories can be demonstrated to have different temporal reference, the question arises whether the observed functional differences between the two categories discussed above necessarily imply that they have different aspectual properties or whether these differences could be traced back to the difference between an extended now reference time and a general present reference time. After all, adhering to Occham's razor one should attempt to find the simplest possible explanation.

In my analysis of the Present Indicative and the Perfect Indicative I suggested that their basic aspectual specifications give rise to different sets of lexically and contextually determined readings. The basic neutral meaning of the Present Indicative may be alternately interpreted as a proper inclusion relation between reference time and event time ($t' \subset t_e$), a coextension relation between reference time and event time ($t' = t_e$) and a proper inclusion relation between event time and reference time ($t_e \subset t'$). These relations are taken to underlie the progressive-processual reading, the iterative-habitual, performative and extended now readings and the completive-sequential reading, respectively. These readings may be illustrated by the examples in (235).

- (235) a. ubhā́ u nū́nām tád íd
 both-NOM and now this-ACC indeed
arthayethe
 have.as.goal-2DU.PRS
 ví tanvāthe dhíyo vástrā
 apart stretch-2DU.PRS thoughts-ACC cloths-ACC
 apāsā iva /
 workers-NOM like
 ‘Both of you are now aiming at this alone, extending your
 thoughts like workers their cloth (upon the loom)’¹² (RV X
 106.1ab)
- b. tád víṣṇoḥ paramām padām̃
 this-NOM Viṣṇu-GEN highest-ACC footstep-ACC
 sādā *paśyanti* sūráyaḥ /
 always see-3PL.PRS sages-NOM
 ‘The sages always perceive this highest step of Viṣṇu by
 intuition’¹³ (RV I 22.20ab)
- c. kím devéṣu tyāja énaś cakartha ~
 what-ACC gods-LOC offence-ACC sin-ACC make-2SG:PRF
 ágne *prcchāmi* nú tvám ávidvān /
 Agni-VOC ask-1SG.PRS now you-ACC not.knowing-NOM
 ‘Which offense, which sin have you committed among the
 gods? O Agni, I ask you because I do not know’¹⁴ (RV X
 79.6ab)
- d. saptá *yuñjanti* rátham ékacakram
 seven-NOM yoke-3PL.PRS wagon-ACC with.one.wheel-ACC
 éko áśvo vahati
 one-NOM horse-NOM draw-3SG.PRS
 saptánāmā /
 with.seven.names-NOM

¹² Cf. Geldner (1951c: 325): ‘Ihr beide habt gewiss nur dieses eine Ziel: Ihr spannet die Gedanken an wie die Meister die Gewänder (auf den Webstuhl).’

¹³ Cf. Geldner (1951a: 21): ‘Immerdar schauen die freigebigen Patrone diese höchste Fußtapfe des Viṣṇu.’

¹⁴ Cf. Geldner (1951c: 261): ‘Welche Feindseligkeit, (welchen) Frevel hast du an den Göttern begangen? Agni, ich frage dich nur, weil ich es nicht weiß.’

‘Seven yoke the one-wheeled chariot. One seven-named horse draws it’¹⁵ (RV I 164.2ab)

- e. sanāt sánílā avánīr
 old-ABL having.the.same.nest-NOM streams-NOM
 avātā
 untroubled-NOM
 vratā rakṣante amṛtāḥ
 ordinances-ACC watch-3PL.PRS immortal-NOM
 sáhobhiḥ /
 intense-INS
 ‘From ancient times the immortal, untroubled streams that
 have the same nest have intensely kept (his) ordinances’¹⁶
 (RV I 62.10ab)

The basic anterior meaning of the Perfect Indicative may be alternately interpreted as a precedence relation between event time and reference time ($t_E < t'$) the relations underlying the existential, resultative and present state readings, or as a coextension relation between reference time and event time ($t' = t_E$), the relation underlying the universal reading. These readings may be illustrated by the examples in (236).

- (236) a. yó naḥ śásvat purā ~
 who-NOM we-ACC continuously previously
 āvitha ~
 help-2SG.PRF
 amṛdhro vājasātaye /
 indefatigable-NOM winning.of.booty-DAT
 sá tvam na indra
 this-NOM you-NOM we-DAT Indra-VOC
 mṛṭaya //
 be.merciful-2SG.PRS.IMP

¹⁵ Cf. Geldner (1951a: 228): ‘Sieben schirren den einrädri gen Wagen an; ein Pferd zieht ihn, das sieben Namen hat.’

¹⁶ Cf. Geldner (1951a: 82): ‘Seit alters her halten die verschwisterten Ströme, die unsterblichen, die durch keine Gewalten bezwungen werden seine Gebote.’

‘You who, indefatigable, have always supported us in winning booty in the past, support us now, O Indra!’¹⁷ (RV VIII 80.2ab)

- b. *yunájmi* *te* *bráhmanā* *keśínā*
 yoke-1SG.PRS you-GEN prayer-INS having.mane-ACC
hári
 bay.horses-NOM
úpa *prá* *yāhi* *dadhiṣé*
 toward forth drive-2SG.PRS.IMP take-2SG.PRF
gábhastyoh /
 hands-LOC
 ‘I yoke your two hairy bay horses. Come hither, you have taken (the reins) in your hand’¹⁸ (RV I 82.6ab)

- c. *śákī* *bhava* *yájamānasya*
 helpful-NOM become-2SG.PRS.IMP institutor.of.sacrifice-GEN
coditā
 instigator-NOM
vísvā ~ ít *tā* *te* *sadhamādeṣu*
 all-ACC indeed these-ACC you-GEN drinking.bouts-LOC
cākana //
 become.pleased-3SG.PRF
 ‘Become helpful, an instigator for the institutor of sacrifice!
 I enjoy all these (deeds) of yours at the drinking bouts’¹⁹
 (RV I 51.8cd)

- d. *á* *yāhi* *śásvad* *uśatā*
 to drive-2SG.PRS.IMP always willing-INS
yayātha ~
 drive-2SG.PRF
índra *mahá* *mānasā* *somapéyam /*
 Indra-VOC great-INS mind-INS soma.drinking-ACC

¹⁷ Cf. Geldner (1951b: 407): ‘Der du uns schon früher immer wieder beigestanden hast, für die Lohngewinnung nicht gering zu schätzen, sei du uns barmherzig, Indra!’

¹⁸ Cf. Geldner (1951a: 105): ‘Ich schirre mit feierlicher Rede deine mähnigen Falben. Fahr los; du hast (die Zügel) in die Hände genommen.’

¹⁹ Cf. Geldner (1951a: 63): ‘Mach dich stark, (sei) Ermutiger des Opfernden! An all diesem (Tun) von dir habe ich bei den Somagelagen meine Freude.’

'Drive hither! You have always driven to the drinking of soma with willing, magnanimous mind'²⁰ (RV VI 40.4ab)

As indicated by the examples in (235) and (236), the Present Indicative and Perfect Indicative apparently only have the extended now or universal reading in common. According to the present analysis, this follows neatly from their respective aspectual specifications, the anterior aspect as defined in this work being *a priori* incompatible with the proper inclusion relations constituting two of the salient readings of the neutral Present Indicative.²¹ Note that a similar case could be made for the claim that the neutral aspect is basically incompatible with the other salient readings of the anterior Perfect Indicative.²²

The general picture emerging from the discussion so far is that the Perfect Indicative represents a semantically more specific category than the Present Indicative. However, as they seem to have partially overlapping and at the same time partially complementary denotations in the aspectual domain, it is dubious whether the relationship between these two aspectual categories can be fully accounted for in terms of a binary privative opposition. If it is correct that grammatically relevant semantic oppositions are typically organized as binary privative pairs, as has been assumed throughout this work, this could be taken as an indication that the main semantic difference between the Present Indicative and the Perfect Indicative concerns their temporal reference which, as we have seen, may be straightforwardly analyzed in terms of a privative opposition. This would seem to imply that the aspectual difference between these two categories is of subordinate importance, in the sense that there are few context types in which their diverging aspectual specifications give rise to direct competition.

²⁰ Cf. Geldner (1951b: 136): 'Komm her! Immer wieder bist du mit verlangendem großmütigem Herzen zum Somatrunk gekommen.'

²¹ Specifically, according to the definition given in Chapter One, a partial precedence relation of the type $(t_E \leq t')$ can be interpreted as a precedence relation $(t_E < t')$, a coextension relation $(t' = t_E)$ and, in principle, an overlap relation where at least one subinterval of the event time interval precedes reference time $(t' \otimes t_E \wedge \exists t_E [t_E \subset t' \wedge t_E < t'])$. However, it cannot be interpreted as a proper inclusion relation of either of the types $(t_E \subset t')$ or $(t' \subset t_E)$.

²² An overlap relation of the type $(t' \otimes t_E)$ can be interpreted as a (proper) inclusion relation of the type $(t_E \subset t' \vee t_E \subset t')$ or of the type $(t' \subset t_E \vee t' \subset t_E)$ and, in principle, as an partial overlap relation of the type $(t' \otimes t_E \wedge \exists t_E [t_E \subset t' \wedge t_E < t'])$ or one of the opposite type $(t' \otimes t_E \wedge \exists t' [t' \subset t' \wedge t' < t_E])$ but neither as a strict precedence relation of the type $(t_E < t')$ nor of the type $(t' < t_E)$.

We may now turn to a discussion of the relationship between the two main past tense categories, the Imperfect and Aorist Indicative. The discussion in this book gives the impression that these two categories differ partly with regard to their temporal reference and partly with regard to their aspectual reference. As regards the temporal reference of the Imperfect and Aorist, it was noted in Chapter Four that the Aorist seems to be compatible with a broader range of past reference times than the Imperfect. Whereas the Aorist is found in immediate, hodiernal and remote past reference times alike, the Imperfect is compatible with hodiernal and remote past reference times but apparently never occurs in contexts with an immediate past reference time. Consider the following examples, familiar from the previous discussion.

- (237) a. *asmābhīr ū nū praticākṣiyā ~ abhūd*
 we-INS and now visible-NOM become-3SG.AOR
 ‘And now she has come into existence to be seen in turn by us’²³ (RV I 113.11c after Klein 1978: 134)
- b. *sādhvīm akar devāvītiṃ*
 excellent-ACC make-3SG.AOR feast.of.the.gods-ACC
 no adyā
 we-GEN today
 ‘He has made our feast of the gods excellent today.’²⁴ (RV X 53.3a)
- c. *āyam adyā sukr̥taṃ prātār*
 come-1SG.IPF today pious-ACC at.daybreak
icchánn
 search-PRS.PRT.NOM
iṣṭéh putráṃ vásumatā
 wish-GEN son-ACC containing.treasures-INS
ráthēna /
 wagon-INS
 ‘I came today at daybreak on a wagon full of treasures search-
 ing for the pious one, the son of my wish’²⁵ (RV I 125.3ab)

²³ Cf. Geldner’s translation: ‘Jetzt hat sie sich von uns beschauen lassen.’

²⁴ Cf. Geldner (1951c: 215): ‘Er hat unsere Götterladung heute erfolgreich gemacht.’

²⁵ Cf. Geldner (1951a: 174): ‘Ich kam heute in der Frühe mit schätzreichem Wagen, den Frommen suchend, den Sohn meines Wunsches.’

d. yé	cid	dhí	púrva	
who-NOM	even	for	earlier-NOM	
ṛtasāpa			āsan	
performing.pious.work-NOM			be-3PL.IPF	
sākām	devébhīr	āvadann	ṛtāni /	
together	gods-INS	speak-3PL.IPF	righteous.words-ACC	
té	cid	āvāsur	nahy	ántam
they-NOM	even	give.up-3PL.AOR	for.not	end-ACC
āpūḥ				
reach-3PL.PRF				
‘For even the previous (sages), who were performing pious work and discussed righteously with the gods, even they gave up, for they did not reach the end’ ²⁶ (RV I 179.2a–c)				

These examples illustrate that the Aorist Indicative and Imperfect are interchangeable in contexts referring to the hodiernal and remote past but that only the Aorist is attested in contexts with an immediate past reference time. These distribution patterns indicate that, as far as time reference is concerned, the Imperfect denotes a subset of the reference times denoted by the Aorist Indicative. One way of accounting for this divergence would be to assume that the Imperfect represents a semantically more specific category than the Aorist, expressing that the reference time does not immediately precede evaluation time ($-t' > t_0$). The Aorist Indicative, on the other hand, might be taken to denote the general past, being typically blocked from non-immediate past contexts by the semantically more specific Imperfect.²⁷ Although this account has the disadvantage of being based on a negative semantic definition without any positive counterpart in the system, it would be largely parallel to the definition of the Imperfect as *bhūte anadyatane* ‘in the prehodiernal past’ given by Pāṇini which also appears to be based on a negative definition. Moreover, an account of the Early Vedic past tense system along these lines would provide a neat analogy to the analysis of the present tense

²⁶ Cf. Geldner (1951a: 257): ‘Denn selbst die Altvordern, die sich des Rechten befleißigten und mit den Göttern rechte Reden führten auch sie haben aufgehört [mit der Kasteigung], denn sie fanden nicht das Ende.’

²⁷ Note that I disregard the possibility that the Aorist Indicative represents an immediate past category for the simple reason that it occurs in contexts where such a reading appears to be excluded, as for instance in (237d).

system given above. In fact, the assumption that the Perfect Indicative is inherently associated with an extended now time interval might be invoked as a partial explanation of the fact that the Imperfect is restricted to non-immediate past contexts, as the notion of immediate past would be very similar to the notion of an extended now.

According to the analysis presented in Chapters Three and Five, the Imperfect denotes the neutral aspect, predicating a general inclusion relation between reference time and event time ($t' \otimes t_e$), whereas the Aorist Indicative denotes the perfective aspect, predicating a general inclusion relation between event time and reference time ($t_e \subseteq t'$). Again, the fact that these two categories can be demonstrated to have different temporal reference makes one wonder whether there is any connection between their divergent temporal properties and their different aspectual specifications. It would certainly be preferable if we could arrive at a unified and coherent explanation for the distributional differences shown by these two categories.

The proposed aspectual specifications of the Early Vedic past tense categories imply that the Aorist Indicative represents a semantically more specific aspect category than the Imperfect. In the above analysis of these two categories, it was suggested that their divergent semantic specifications give rise to different sets of readings. Within the present framework, a general inclusion relation of the type denoted by the Aorist Indicative may be regarded as a specific variant of the general overlap relation denoted by the Imperfect. This analysis would be significantly strengthened if it could be shown that the Aorist is associated with a subset of the readings associated with the Imperfect, a prediction which in fact seems to be borne out. Consider the following examples, familiar from the previous discussion.

- (238) a. *avadyám* *iva* *mányamānā* *gúhā* ~
 shame-ACC like think-PRS.PRT.NOM secretly
akar
 make-3SG.AOR
índraṃ *mātā́* *vīryeṇā*
 Indra-ACC mother-NOM manliness-INS
nyṛṣṭam /
 bristling-ACC.SG
áthā *úd* *asthāt* *svayám* *átkaṃ*
 but up rise-3SG.AOR self armor-ACC
vāsāna
 wear-PRS.PRT.NOM

á ródasī aprṇāj jáyamānaḥ //
 up two.worlds-ACC fill-3SG.IPF be.born-PRS.PRT.NOM
 ‘As if she regarded him as a shame, the mother removed
 Indra, who was bristling with manliness. But he stood up,
 wearing his armor; (just) being born he filled up the two
 worlds’²⁸ (RV IV 18.5)

b. vṛṣāyāmāṇo vṛṇīta sómaṃ
 eager-NOM choose-3SG.IPF soma-ACC
 trikadrukeṣv apibat sutāsya /
 trikadrukas-LOC drink-3SG.IPF juice-GEN
 á sáyakaṃ maghávā ~
 to resounding-ACC munificent-NOM
adatta vājram
 get-3SG.IPF mace-ACC
áhann enaṃ prathamajám áhīnām //
 smite-3SG.IPF that-ACC first.born.ACC dragons-GEN
 ‘Eager he chose the soma. He drank of the extracted (soma)
 in the trikadrukas. The munificent one took the resounding
 mace. He killed that firstborn of the dragons’²⁹ (RV I 32.3)

c. anyó anyám ánu ḡrbhṇāty
 another-NOM another-ACC after take-3.SG.PRS
 enor
 the.two-GEN
apám prasargé yád ámandiṣātām /
 waters-GEN outburst-LOC when be.delighted-3DU.AOR
 ‘One of the two grasps the other from behind, when they
 have become exhilarated in the discharge of the waters’³⁰
 (RV VII 103.4ab after Jamison 1993: 140)

d. índro asmám aradad vājrabāhur
 Indra-NOM we-ACC dig-3SG.IPF mace.armed-NOM

²⁸ Cf. Geldner (1951a: 442): ‘Als ob sie ihn für einen Schandfleck hielte, hat die Mutter den Indra versteckt, der von Manneskraft strotzte. Da erhob er sich, selbst sein Gewand umlegend; der Neugeborene füllte beide Welthälften an.’

²⁹ Cf. Geldner (1951a: 37): ‘Der Gabenreiche ergriff das Wurfgeschloß, die Keule; er erschlug ihn, den Erstgeborenen der Drachen.’

³⁰ Cf. Geldner (1951b: 272): ‘Einer von zweien unterstützt den anderen [im Freudengeschrei], wenn beide über den Losbruch der Gewässer erfreut sind.’

āpāhan vṛtrām paridhīm
 away.smite-3SG.IPF Vṛtra-ACC enclosure-ACC
 nadīnām /
 rivers-GEN
 devò 'nayat savitá
 god-NOM lead-3SG.IPF Savitar-NOM
 supāñís
 with.beautiful.hands-NOM
 tāsya vayāṃ prasavé yāma
 he-GEN we-NOM impetus-LOC drive-1PL.PRS
 urvīḥ //
 broad-NOM

'Mace-armed Indra dug us; he warded off Vṛtra, the enclosure of the rivers. God Savitar incited us with his beautiful hands. On his impetus we are flowing widely'³¹ (RV III 33.6)

e. bahvīḥ sāmā akaram antár
 Many-ACC years-ACC make-1SG.AOR within
 asminn
 this-LOC
 índraṃ vṛṇānāḥ pitāraṃ
 Indra-ACC choose-PRS.PRT.NOM father-ACC
 jahāmi /
 leave-1SG.PRS

'For many years I have worked here. Choosing Indra, I am (now) leaving my father'³² (RV X 124.4ab)

f. yád vírūpā ~ ácaram
 when with.changed.appearance-NOM move-1SG.IPF
 mārtyeṣv
 mortals-LOC
 ávasaṃ rātrīḥ śarādaś cátasraḥ /
 dwell-1SG.IPF nights-ACC autumns-ACC four-ACC

³¹ Cf. Geldner (1951a: 373): 'Indra, der Keulenträger, furchte uns das Bett; er verjagte den Vṛtra, der die Flüsse umschloß. Gott Savitr mit der schönen Hand leitete (uns). Auf dessen Antrieb ziehen wir noch breit dahin.'

³² Cf. Geldner (1951c: 354): 'Viele Jahre war ich ihm tätig. Da ich Indra erwähle, verlasse ich den Vater.'

‘When I roamed among mortals I spent the nights (with you) for four years’³³ (RV X 95.16ab)

g. ví	cármaṇī	~	iva	dhiṣāṇe
apart	two.skins-ACC		like	heaven.and.earth-ACC
<i>avartayad</i>				
make.turn-3SG.IPF				
vaiśvānaró		víśvam		<i>adhatta</i>
Vaiśvānara-NOM		all-ACC		take-3SG.IPF
vṛ́ṣṇyam //				
manly.power-ACC				

‘Turning heaven and earth apart like two hides, he took hold of all his manly power’³⁴ (RV VI 8.3cd)

These examples illustrate that the Aorist Indicative and Imperfect have several readings in common. The first two examples show that either of these categories can be used with a completive-sequential reading, denoting a past situation which is represented as terminated prior to another past situation. The second and third examples provide evidence that the Aorist Indicative as well as the Imperfect can be used with an inchoative-ingressive reading, focusing the entry into a state or process. Within the present framework, these two readings are taken to imply that the event time is properly included in reference time ($t_e \subset t'$). Moreover, examples (238e) and (238f) illustrate that the Aorist Indicative as well as the Imperfect is compatible with durative temporal adverbs, implying that reference time is coextensive with event time ($t' = t_e$). Finally, the last example illustrates that Imperfect forms of telic predicates are compatible with a progressive-processual reading, implying that reference time is properly included in event time ($t' \subset t_e$), a reading which does not seem to be available for the Aorist Indicative. These data indicate that the Aorist Indicative is associated with a principled subset of the readings associated with the Imperfect.

A critical reader might object that there is at least one counter-example to this generalization, namely the performative reading of

³³ Cf. Geldner (1951c: 303): ‘Als ich in anderer Gestalt unter den Sterblichen wandelte, vier Jahre lang (alle) Nächte (bei dir) wohnte.’

³⁴ Cf. Geldner (1951b: 100): ‘Die beiden Welten rollte er wie Felle auseinander, Vaiśvānara eignete sich die volle Bullenstarke an.’

the Aorist Indicative which is not available for the Imperfect. However, it was argued in previously in this work that performative sentences presuppose that reference time is coextensive with event time ($t' = t_e$). From this perspective, the performative reading of the Aorist Indicative may be taken to represent a special case of a reading which is also available for the Imperfect. The fact that the Imperfect does not occur in performative sentences in Early Vedic rather reflects the fact that it represents a less suboptimal candidate for expressing performativity than the Aorist Indicative. Specifically, an optimal expression of performativity would be a category combining present tense and perfective aspect. The Aorist violates the first of these constraints, but satisfies the other. The semantically more general Imperfect violates both these constraints and this is the reason why it is excluded from performative sentences in Early Vedic (cf. Dahl 2008b).

These considerations suggest that the relationship between the Imperfect and Aorist Indicative within the aspectual domain is exactly the opposite of what it appears to be in the temporal domain. As both the relevant semantic contrasts may be described in terms of binary privative oppositions, there appears to be no principled way of deciding whether aspect, tense or both constitute the grammatically relevant semantic dimension in the Early Vedic past tense system. As temporal distinctions constitute the main semantic difference between the Present Indicative and Perfect Indicative, it is tempting to conclude that this is the case with the Imperfect and Aorist Indicative as well.

Recall, however, from the discussion in Chapter One that temporal remoteness distinctions of the type conveyed by the Imperfect and Aorist Indicative are sometimes motivated by aspectual contrasts. It was noted that past perfective categories strongly tend to be preferred to past neutral categories in contexts with an immediate or recent past reference time in languages like Russian. This provides a striking parallel to the Early Vedic past tense system, where the past neutral Imperfect appears to be excluded from immediate past contexts, the exclusive domain of the past perfective Aorist Indicative. A reasonable conclusion thus would be that the temporal remoteness readings of the Imperfect and Aorist are ultimately motivated by their different aspectual specifications. If this is correct, the distribution patterns illustrated by the examples in (237) could be accounted for in terms of a morphosyntactic blocking process. As will be recalled from the

previous discussion, immediate past contexts are taken to presuppose that a morphosyntactic category is compatible with the implicature that reference time immediately precedes evaluation time ($t' > t_0$) but at the same time typically imply that the situation has been terminated prior to speech time. Although past perfective as well as past neutral categories are in principle compatible with this somewhat marked aspecto-temporal relation, a past perfective category like the Aorist Indicative may be assumed to represent a more suitable or optimal way of expressing this relation than a past neutral category like the Imperfect, as it, unlike the latter, entails that the event time does not last longer than the reference time. Being blocked from immediate past contexts by the semantically more specific Aorist Indicative, the Imperfect might be expected to be generally restricted to non-immediate and remote past contexts.

One immediate advantage of deriving the remoteness readings of the Aorist Indicative and Imperfect from their different aspectual specifications is that we thereby avoid the somewhat unsatisfactory assumption that the Imperfect is positively characterized as being incompatible with immediate past contexts, as suggested above. We also arrive at a conceptually simpler explanation of the distribution of the Early Vedic past tenses. These considerations suggest that aspectual distinctions may be ascribed a more central role than temporal distinctions in the Early Vedic past tense system, whereas temporal distinctions have a more central position than aspectual distinctions in the present tense system. Accordingly, the Early Vedic verbal system may be regarded as a split-aspectual system, in which the distinction between neutral and perfective aspect is the central grammatically relevant semantic dimension in the past tense system, whereas the distinction between retrospective and non-retrospective present time reference constitutes the grammatically relevant semantic dimension in the present tense system. Note that this account of the Early Vedic tense/aspect system appears to differ in significant respects from the accounts given by scholars like Delbrück (1876, 1896) and Tichy (1997), not least with regard to the temporal remoteness readings of the Aorist and Imperfect which in the present work are regarded as epiphenomena and not part of the semantic specification of these two categories.

Apart from this general characterization of the Early Vedic tense/aspect system, we may draw some further conclusions concerning

some more specific issues. From the discussion in this book it should be clear that Early Vedic has a considerable set of constructions that can be used to refer to an event that has occurred in the recent or immediate past. Above all, in the system outlined so far, we seem to have two semantically marked categories that may be taken to have overlapping time reference in this particular domain, namely the Aorist Indicative and the Perfect Indicative. Strictly speaking, these two categories are associated with two basically opposed types of temporal reference, the Perfect Indicative expressing that evaluation time is included in reference time ($t_0 \subseteq t'$) and the Aorist Indicative expressing that reference time is prior to evaluation time ($t' < t_0$). However, the retrospective present time reference of the Perfect Indicative may be taken to express that a subinterval of the reference time is located prior to evaluation time/speech time and, as a result, it denotes a reference time interval overlapping with the reference time denoted by the Aorist Indicative under its recent or immediate past reading. Under these circumstances, one would expect a competition between these two categories, but given what has been said about their temporal and aspectual properties, it is not clear along what semantic dimension these two categories may be taken to compete. In fact, examples like the following indicate that the Perfect Indicative and the Aorist Indicative can be used more or less interchangeably in recent or immediate past contexts.

- (239) a. *ádhvaryo drāváyā tvám*
 Adhvaryu-VOC make.flow-2SG.PRS.IMP you-NOM
sómam índraḥ pipāsati /
 soma-ACC Indra-NOM be.thirsty-3SG.PRS
úpa nūnám yuyuje vṛṣaṇā
 unto now yoke-3SG.PRF horses-ACC
hári á ca jagāma vṛtrahā //
 bay-ACC to and come-3SG.PRF Vṛtrakiller-NOM
 'Adhvaryu, you let the soma flow! Indra is thirsty. Now the
 Vṛtrakiller has yoked his two bay horses and has come
 hither'³⁵ (RV VIII 4.11)

³⁵ Cf. Geldner (1951b: 289): 'Adhvaryu! Laß du den Soma strömen; Indra hat Durst. Jetzt hat er sein Falbenpaar, das bullengleiche, angeschirrt und ist hergekommen, der Vṛtratöter'. Kümmel's (2000: 407) translation of the two last pādas is

- b. á ~ uṣā́ *agan* prathamā́
 to Uṣas-NOM come-3SG.AOR first-NOM
 pūrváhūtau //
 morning.prayer-LOC
 yád adyá bhāgám *vibhájāsi*
 when today share-ACC apportion-2SG.PRS.SBJ
 nṛbhya
 men-DAT
 úṣo devi martyatrā́
 Uṣas-VOC goddess-VOC among.mortal.men
 sujāte /
 well.born-VOC
 ‘Uṣas has come as the first to the morning prayer. O Goddess
 Uṣas, when you today apportion the share to the heroes
 among mortal men, O highborne one, (...)’³⁶ (RV I 123.2d–3b)

Examples like these indicate that Perfect Indicative forms like *jagāma* ‘has come’ and Aorist Indicative forms like *agan* ‘came, has come’ can be interchanged without any significant change in meaning when referring to a single, specific situation located in the immediate or recent past. Given the brief discussion of the relationship between aspect and temporal remoteness in Chapter One, this is not an unexpected finding, as both past perfective categories and present anterior categories were argued to represent suitable expressions of immediate past.

Significantly, however, a case could be made for the claim that the Aorist Indicative is more readily available for a recent past interpretation than the Perfect Indicative. Consider the following examples:

- (240) a. śásvat purá ~ uṣā́ vy
 continuously previously Dawn-NOM apart
 úvāsa
 shine-3SG.PRF devy
 goddess-NOM

similar: ‘*Angeschirrt hat jetzt seine falben Hengste und her ist gekommen der Vṛtratöter (Indra).*’

³⁶ Cf. Geldner (1951a: 170): ‘Als erste ist Uṣas zur Frühanrufung gekommen. Wenn du, Göttin Uṣas, heute unter den Sterblichen den Herren ihr Teil zuteilen wirst, du Edelgeborene, (...)’

átha ~ u adyá idám vy àvo
 and also today here apart shine-3SG.AOR
 maghónī /
 bountiful-NOM
 átha ~ u vy ùcchād úttarām̃
 and also apart shine-3.SG.PRS.SBJ future-ACC
 ánu dyūn
 along days-ACC
 ajārā ~ amṛtā carati
 undecaying-NOM immortal-NOM move-3SG.PRS
 svadhābhiḥ //

according.to.one's.habit

'Repeatedly has the heavenly dawn previously shined out,
 and today has the liberal one just dawned here. And she
 shall (also) shine out throughout the later days. Ever young,
 immortal she moves as usual'³⁷ (RV I 113.13, a–c after Klein
 1985b: 88)

b. īyúṣ té yé pūrvatarām
 go-3PL.PRF those-NOM who-NOM earlier-ACC
 ápaśyan
 see-3PL.IPF
 viuchántim uśásam mártiyāsaḥ /
 shining.forth-ACC dawn-ACC mortals-NOM
 asmābhir ū nú praticákṣiyā ~ abhūd
 we-INS and now visible-NOM become-3SG.AOR
 á u té yanti yé
 hither and those-NOM go-3.PL.PRS who-NOM
 aparīṣu páśyān //
 future-LOC see-3PL.PRS.SBJ

'Gone are those mortals who have looked upon the previous
 shining dawn. And now she has come into existence to be
 seen in turn by us. Hither come those who shall look upon
 (her) in later times'³⁸ (RV I 113.11 after Klein 1978: 134)

³⁷ Cf. Geldner (1951a: 149): 'Immer wieder ist früher die Göttin Usas aufgeleuchtet und auch für heute ist sie jetzt hell aufgeleuchtet, die Gabenreiche. Und sie wird alle späteren Tage aufgehen; nie alternd, unsterblich wandelt sie nach eigenem Ermessen.'

³⁸ Cf. Geldner's translation: 'Vergangen sind die Sterblichen, welche die früheren Usas' aufgehen sahen, jetzt hat sie sich von uns beschauen lassen; es kommen die, welche sie in Zukunft sehen werden.'

In these cases, the Aorist Indicative forms *āvas* ‘she shone, has shone’ and *abhūt* ‘became, has become’ denote a single specific situation located immediately prior to the time of the utterance. In contrast, the Perfect Indicative forms *ūvāsa* ‘has shone’ and *īyūs* ‘have gone’ are used with somewhat different implications. In the first case, the form *ūvāsa* ‘has shone’ expresses that the goddess of dawn used to shine out in the past, as indicated by the adverbial phrase *śāsvat purā* ‘continuously previously’. In the second case, the form *īyūs* ‘have gone’ may be taken to express that a situation of the type denoted by the (atelic) predicate *AY- té* ‘they go’ has been terminated prior to reference time. These examples neatly illustrate how the different aspectual specifications of the Aorist and Perfect give rise to fundamentally different readings in one and the same context.

Recall from the above discussion that both the Aorist Indicative and the Perfect Indicative were shown to be compatible with a single event as well as a multiple event reading. However, while the Aorist Indicative is only very rarely attested with a multiple event reading, the Perfect Indicative represents the main expression of the past habitual reading in Early Vedic. It was also suggested that the inherent present retrospective time reference of the Perfect Indicative makes it a more optimal candidate for expressing this relation than, for instance, the Imperfect or Aorist Indicative, as the extended now interval constituting this particular time reference may easily be interpreted in terms of a (habitual) state. It is therefore tempting to conclude that the Perfect Indicative was strongly associated with a past habitual reading, an assumption which would find some support in the fact that the Perfect does not seem to be compatible with state verbs inherently specified for the [+Single Event] feature, as noted in Chapter Two.

Note that the present analysis implies an account of the relationship between the Aorist and Perfect that differs in significant respects from the accounts proposed by Kiparsky (1998) and Mumm (2002), who advocate the view that the Aorist Indicative represents a semantically more specific category than the Perfect but that the two have essentially the same semantic properties. From one perspective, the Aorist Indicative indeed represents a more optimal candidate than the Perfect Indicative for expressing certain readings, for instance the immediate past reading, as illustrated by the examples in (240). However, as these two categories appear to have fundamentally different sets of lexically and contextually determined readings, as shown

in the course of the previous discussion, and therefore may be taken to differ fundamentally in their aspectual as well as in their temporal reference, the Aorist and Perfect appear to stand in an equipollent rather than a privative opposition, just as was argued to be the case with the relationship between the Present Indicative and Perfect.

We thus arrive at a tense/aspect system where the distinction between general present, retrospective present and general past and the distinction between neutral, perfective and anterior aspect systematically constrain the range of readings associated with each of the tense/aspect categories. The data presented in Chapters Three through Five suggest that the distribution of the various modal categories belonging to the Present, Aorist and Perfect Stems is also determined by aspectual factors, but here a systematic examination of their respective range of readings is more difficult, as the Early Vedic sources generally do not provide the types of discourse contexts needed for an investigation along these lines, for instance longer discourse fragments about possible states of affairs. Although a more thorough understanding of the relationship between aspect and modality in Early Vedic thus might turn out to be just beyond the borders of the accessible, the framework developed in this book would at least suggest a method for establishing to what extent the quirky sources allow us to peek into the fascinating realm of Early Vedic inflectional semantics.

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